

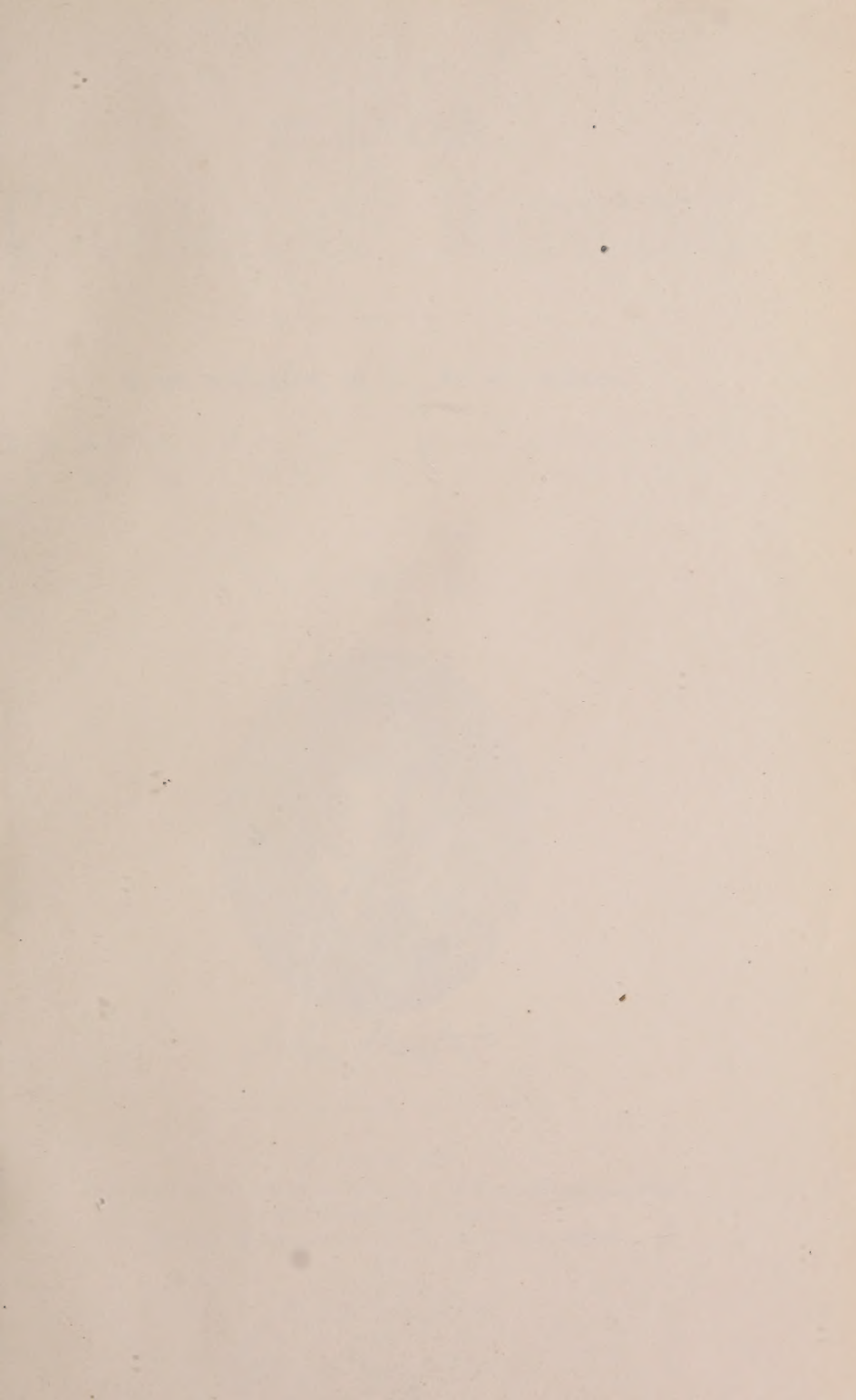



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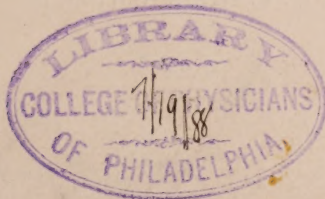
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NO. I.

ORIGINAL ARTICLES.

WHAT IS THE LEGITIMATE SCOPE OF GYNECOLOGY?

BY WALTER COLES, M. D.

[Annual address, read before the St. Louis Obstetrical and Gynecological Society, Nov. 17.]

GENTLEMEN: It is a pleasure to me in retiring from the presidency of this society, to be able to bear testimony to the increased interest which has characterized its proceedings during the past year. Not only have the discussions been spirited and profitable, but the numerous papers presented evince a degree of originality and ability which is exceedingly encouraging. This gratifying success is due, not to the merits of your presiding officer, but rather to our very efficient and energetic Recording Secretary, who at the sacrifice of his own personal interests and convenience, has set an example to many who are younger, in seeing that some profitable and interesting subject of discussion was provided for every meeting. It is only by such earnest efforts on the part of all concerned that a small body like ours can maintain its vitality and vigor.

We have done well, but there is yet abundant room for im-

provement, and we should pledge ourselves on this our anniversary, to renewed interest in our work. For it should be borne in mind that this society, through its published transactions, is a reflex of the status of gynecology, not alone in the great city of St. Louis, but of the Mississippi valley. Fellowship in this society carries with it an implied honor, and involves a personal responsibility which cannot be evaded or neglected without reflecting discredit on all concerned, and particularly upon that special branch of medicine and surgery which it is the object of this association to foster and improve.

These remarks are made in no spirit of criticism, but simply to recall the fact that as representatives of a limited body of gynecologists, we cannot afford to be laggards or stragglers behind the army of thinkers and workers who are pushing their way to the front on every side of us. Such is the wonderful progress in all departments of medicine, that the man who loiters or sleeps by the wayside, soon finds himself lost in a maze of new ideas, new terms, new instruments and new methods. Although it seems but as yesterday that Simpson, the great luminary in the science of obstetrics, and Sims, the Moses of gynecology, were present with us in the flesh, yet could they revisit the scenes of their former usefulness, how amazed would they be at the progress which their pupils have made, and how sweet would seem the fruit that has sprung from the soil they cultivated and the seeds they planted!

Gynecology is in most respects a new department of medical science which has developed into life within the present generation. For although female diseases attracted the attention of the older physicians, it has only been since the introduction of Sims' speculum and its modifications that we have commenced to make real progress. We are, therefore, treading on new ground. The vanguard in gynecological work of to-day may be likened unto pioneers in the wilderness: it is but blazing the way for others to follow, who will doubtless perfect the paths which their leaders have trod. The deep and abiding principles of pathology are developed slowly, the errors of one generation often serve as beacon lights to its successor; one fallacy after another gives way to earnest study and patient investigation, until

at last the refined gold of practical truth is laid bare, and separated from the dross of mere theory and speculation. Much of this refining process has been accomplished, but many crudities yet remain unsolved. We are however inspired with that confidence which comes with more exact methods of diagnosis, the offspring of riper principles of pathology, together with improved therapeutic and surgical devices, and hence are brushing away many of the obstacles that have hitherto beset our pathway.

Such indeed have been the rapid strides in surgical gynecology; and the immunity with which it is now possible to perform the gravest operations, as to have given rise to the charge that some of our brethren have been tempted to overleap the bounds of prudence and humanity in subjecting their patients to unwarranted mutilation. And this reminds me that it was time I had announced in more explicit terms, the subject of my remarks this evening. I will therefore beg you to bear with me, while we inquire as briefly as possible, *What is the legitimate scope of gynecology?* This is a broad question, full of suggestions, but perhaps there is none which we may more appropriately consider on the present occasion, in connection with the aim and object of this organization.

Surely the legitimate field of gynecology is broad enough, without the necessity of encroaching upon territory belonging to other departments of medicine. And yet, we have of late been recipients of hostile demonstrations in several quarters. Some of our neurological brethren, apparently not content with the comprehensive domain which they have preempted, are, like Alexander of old, sighing for other worlds to conquer. Some of these gentlemen claim the prerogative not only of defining the pathological and therapeutic limits of gynecology, but would place sign-boards upon every possible avenue of approach to their own stronghold, warning trespassers to "keep out!" Two distinguished neurologists of this city seem to be especially exercised on this subject, and have recently published papers in which gynecology and gynecologists have been held up to no small degree of condemnation and ridicule. True, these

gentlemen are kind enough to say that there are a few capable and honest men among us, but, if we are to judge from the tone and temper of their very sweeping remarks, the public must conclude that they are exceptionally rare. This is particularly the case with a paper entitled "*Gynecology in Neuroses and Psychoses*," read by Dr. L. Bremer before the St. Louis Medical Society. In this paper the Doctor undertakes to ventilate what he terms "narrow minded specialism" in gynecology, as it appears to a neurologist. He introduces the subject by remarking. "I think it was an unlucky day for women when the captivating term 'reflex neurosis' was invented," and claims that it is simply a "convenient resort" for a doctor who is at his "wit's end" in a given case. He then goes on to say, "It comes very handy, and never fails to make an impression on the admiring layman, especially when its mysterious workings are explained in still more mysterious language, full of Greek words." Verily, such a commentary, coming from a neurologist, is amusing, in that it is a clear case of the pot calling the kettle black!

Dr. Bremer prefers charges against gynecologists which, if true, should stamp them not only as charlatans, but as the worst enemies of society. He accuses them of wantonly polluting the minds of young women, by subjecting them to unnecessary examinations, of wrecking homes, as being fruitful promoters of divorce, of driving women into the opium habit, into mad houses, and of other offences equally criminal and derogatory. And all this simply from greed of gain, for, says the doctor, "the generality of gynecologists do not, as a rule, look upon the ethical side of this question," but examine and treat locally "whosoever presents herself."

Dr. C. H. Hughes, another eminent neurologist, has contributed several articles to the *Weekly Medical Review* upon what he styles "oophorectomic destruction." In the issue of this journal, June 25, 1887, under the title of "The Ovaries Saved," the doctor publishes a letter from a medical friend, who offers a substitute for oophorectomy. The writer details at length a pretended operation in which he had taken part; the patient being etherized, and while under the influence of the anesthetic, the skin of the abdomen was "pinched,"—a little blood poured out, "from a

bottle," and dressings applied. The patient was placed under the care of a trained nurse, and shown an "old but re-baptized" tumor, and told that this was the fruit of the "operation." We are also informed that this patient made a good recovery, and "still has her ovaries and confidence in the doctors."

I will only remark that the name of the physician who perpetrated this clever piece of charlatanry, was generously withheld by Dr. Hughes, when he unfortunately substituted an anonymous communication for an argument, a substitute, by the way, which lacks even the merit of originality, for, as Hegar remarks, this is an old trick, which has signally failed to secure either relief to the patient or credit to the doctor.

It is to be regretted that such worthy gentlemen as the two to whom I have alluded, should have been led into extravagant and derisive criticism of a large class of their brethren in the profession. Theirs is a line of argument however, which we do not care to pursue. Gynecology, while it lays no claim to infallibility, can well afford to compare practical results with any other special branch of medicine or surgery. No doubt many women have been examined, whose generative organs proved to be healthy. But in no other way, perhaps, could this fact be established. Doubtless ovaries have been excised without proper warrant, but it is incredible that such things are done by the "generality of gynecologists," from so sordid a motive as pecuniary gain. It is more charitable, and I believe more just, to attribute such mistakes to errors of judgment. As compared with base motives, I would prefer even to plead ignorance, such ignorance as sometimes condemns a limb to useless sacrifice, or subjects a patient to the painful routine of faradization for "hyperemia of the brain," when all he needs is to throw physic to the dogs and go a-fishing. Such blunders as these, do not by any means tarnish the established principles of surgery or of neurology. They simply go to show that men are fallible.—especially such as cultivate a habit of looking at pathological phenomena from a one-sided stand-point, particularly with those who pursue special studies at college and in early life, to the neglect of the broader principles of general pathology.

The brightest names among the gynecologists of our country are those who have drifted into special practice either by accident, or the force of circumstances. McDowell was a physician of ripe observation and experience, before he ventured to perform ovariectomy. Joseph Mettew, was a noted surgeon long before he employed the metallic suture. Sims was a "country doctor" when he invented his speculum. T. G. Thomas was a general practitioner, and taught me skin diseases at the Demilt Dispensary, before he became a gynecologist, and the same may be said of Emmet and others. It was in the broad school of general pathology and experience that these men laid a foundation deep and strong, upon which to build a special reputation.

The medical profession is rapidly drifting into specialties, perhaps too much so for its own good. We are going back to a condition of things somewhat analogous to that which the great traveler Herodotus tells us was in vogue among the ancient Egyptians,—he says, "The art of medicine is thus divided among them; each physician applies himself to one disease only, and not more. All places abound in physicians; some physicians for the eyes, and others for the head, others for the teeth, others for the parts about the belly and others for internal disorders." The divisions among the so-called specialists of the present day, are founded upon enlightened views of physiology and pathology rather than strictly anatomical lines. We recognize the body as a vital structure composed of numerous organs, each discharging its peculiar function, and each bearing certain anatomical and physiological relations to the whole. Although our Egyptian brethren had inklings of the circulation of the blood long before the days of Harvey, yet we occupy the vantage ground in possessing much clearer ideas of the physiological and pathological subtleties ever present in the human frame. We have come to know that in more senses than one it is impossible to disassociate the several organs of the body; they are all nourished by the same vital fluid, and they are all connected either directly or indirectly with the same all-pervading nervous system. We therefore understand how it is impossible for one organ to suffer without disturbing

the function of some other, thus establishing a pathological bond of sympathy which may pervade the entire organism.

These general principles being accepted as true, and the basis of practical medicine at the present day, we no longer think of specialists as confining themselves to the treatment of one particular disorder or anatomical region, as was the case with the ancients, but rather to an organ or organs which are correlated functionally and pathologically. No successful specialist can regard all the diseases which come under his observation in a strictly isolated sense. He must take into consideration the general health, and thus be on the alert for any and all morbid processes which may contribute to, or in any way be influenced by the local condition. His failure or success will depend upon a proper discrimination between cause and effect.

This is eminently the case in dealing with that group of organs peculiar to women, and which come within the province of the gynecologist. The uterus and the ovaries may be regarded as the central organs in the mental and physical life of woman. As Robert Barnes remarks, "in order to appreciate justly the pathology of woman we must observe her in all her social relations, study minutely her moral and intellectual characteristics, in short never for a moment lose sight of those physical attributes which indelibly stamp her as a woman; which direct, control, and limit the exercise of her faculties. This collateral study is of infinitely more importance in the pathological history of women than in that of men. A very large, perhaps the preponderating proportion of all the diseases to which women are subject, arise out of, or are in intimate reactive relation with the play of her sexual system. The key to many of the disorders of woman, especially of the nervous system, will be found here. The essence of her mental life is responsiveness, the emotional, the reflex, or diastaltic functions play an infinitely more active part than in man. It may further be said that the reciprocal action of the brain and spinal-cord and ganglionic nerves, is quicker and more intimate than in man, especially that the brain is more strictly subservient to the animal func-

tions. Abstraction from corporeal impulse, initiation, enterprise, are masculine faculties."

Any one who observes closely the history of woman's life cannot fail to note the preponderating influence of her sexual system, which is naturally divided into three epochs,—(1) childhood, (2) middle life, (3) decline of life. These epochs are distinctly marked, and the transition from one stage to another is accompanied by physiological and pathological phenomena which afford abundant material for philosophic reflection. The female child differs little in its physical and mental life from the male child; her sexual being is as yet undeveloped and is consequently dormant. As the age of puberty approaches, however, the dominance of the reproductive organs begins to assert itself,—not only does she become a woman physically, with all the remarkable changes which the name implies, but there is a corresponding transformation in her intellectual and physical constitution. For the first time peculiar nervous perturbations are excited, which emphasize the fact that the generative apparatus is assuming its full sway, and that it abounds in delicate and sensitive neurotic sympathy.

The relations of the gynecologist to the child are mostly incidental, and it is comparatively seldom that any question will arise with which he is concerned before the approach of puberty. From this time on to the menopause, that is to say, during the active sexual life of woman, menstruation and child-bearing, the chief functions of her being, come into play, and whether she leads a life of matrimony or celibacy, for they both have their penalties, she can rarely expect to escape the ministrations of the physician whose business it is to look after her sexual health. For, as parturient she will surely need his services. If she prove sterile, she is equally certain to consult him; and, as old maid, is more or less prone to encounter certain local and functional ills which accompany physiological passivity of the most important organs of her economy. Nor do her troubles cease with the "change of life:" indeed it is here, as we all know, that the most serious complications often arise. Not only is there a tendency to menstrual irregularities and serious floodings as this period is approached, but to malignant disease and other local

maladies ; indeed but few women pass through the climacteric without nervous and physical disturbances even more pronounced than those encountered at puberty. The sexual organs are lapsing into a senile, or atrophic condition, and the nervous forces which, for two-thirds of a life-time have centered in these parts, find their occupation gone, and are deflected and diffused in other directions. This implies an equal disturbance in the vascular system ; hence we may expect to encounter apoplexy, vertigo, and other cerebral complications, syncope, palpitation, hot flushes, indigestion, pruritus and numerous other morbid conditions so common at this period.

Time will not permit a detailed discussion of the anatomical, histological and physiological characteristics of the female generative organs. Much food for reflection might be gathered from a more careful review of the peculiar structure of the uterus, ovaries and breasts, their lymphatic, vascular and nervous relations, in connection with the various morbid processes to which they are subject. A superficial glance at the subject, however, is sufficient to impress us with the immensity of the field which the gynecologist has to traverse both theoretically and practically, in order to properly interpret the multiform morbid phenomena which may come under his supervision.

Dealing as he does, with questions of the most sacred and intricate nature, the gynecologist should possess the highest mental and moral attributes, together with mature professional experience, before he ventures to analyze and treat the complex disorders peculiar to women. I believe I speak but the simple truth when I say that comparatively few in the profession are naturally fitted for this work, since it requires a refinement of discrimination and judgment in weighing psychical and physical symptoms, in disentangling cause from effect, which is not vouchsafed to every physician, no matter how well educated he may be. For, unfortunately, mere learning does not always impart the power of rational deduction, or imbue its possessor with sound practical judgment at the bed-side. The confiding patient leaves her medical adviser to decide whether she needs special treatment, and what that treatment shall be,—in other words he is expected to so analyze and compare symptoms and

conditions as to form a correct conclusion whether the case comes properly within his province, or should revert to the general practitioner, or some other of the various special-branches of pathology.

With broader views of pathology and therapeutics must surely come a more just and liberal spirit in dealing with our patients, and also with our professional associates, for we may be said to live in a community, and there should be no line-fences between us. We must of necessity be dependent upon each other, since we are "all members of one body" and draw our knowledge from a common source. The branches of medicine, like the twigs of a tree, are sustained and nourished by the sap which courses upwards through the roots and the trunk. Thus it is that the pathological orbit of the gynecologist and general practitioner must frequently intersect that of the neurologist, dermatologist, laryngologist and others. We should, therefore, dwell together in harmony, and if we would more frequently come together, discussing questions of mutual interest and consult each other, we would all grow in brotherly love, as well as in the depth and breadth of our practical and scientific attainments.

BLOOD CLOT IN THE PUERPERAL STATE.

BY GEO. F. HULBERT, M. D., *Late Superintendent St. Louis Female Hospital.*

[*Read before the St. Louis Obstetrical and Gynecological Society.*]

THE above subject has been selected for my paper this evening in order that I may have the pleasure of presenting to the members of this society some thoughts thereon based upon observations made in over one thousand cases delivered in the Female Hospital, during my administration.

In the literature at my command I have not been able to find any special attention given to the subject, and in only one instance have I found mention made of the condition.

I am led to the conclusion that blood clot in the puerperal state is a matter of great importance, the sequences of serious import and the treatment a matter of great concern to the patient as well as physician. The object of this paper is not to deal with blood clots at labor, but those only which are formed *after delivery has been fully completed and our patient left with an empty uterine cavity.*

The Etiology of the Condition. Under this head the condition of the patient in which the condition is apt to occur. The first point that an examination of the records brings to the mind is the want of uniformity of our cases, as regards primiparæ or multiparæ; the two classes seem to be about evenly divided. Physical conditions of the patient have a greater influence: the clot has been found almost entirely in those in which a history of some debilitating influence, has been at work, manifest in the general surroundings of the patient: nutrition, temperament, condition of the excretory functions or occupation. Undoubtedly all of these causes or influences are retroactive toward each other, and can be expressed in the phrase lowered vitality. As an illustration of the persistence toward evil these influences have had I can say that it is marked, when it is considered that nearly all of these patients were taken from the exposure they were subjected to and placed under as favorable surroundings as they had ever been in, and this favorable state persisted for an average time of four to six weeks. The especial characteristic of these patients was a nervous temperament in which nerve-tire, and exhaustion was easily attained.

Out of twenty-five cases only one was of lymphatic temperament. Another feature was mental strain or uncertainty of future maintenance of mother and child.

While singly none of the above influences would have any special significance, taken from an etiological standpoint, taken in the aggregate they are important, and I believe *the factors* favoring the development of blood clot after parturition.

The influence of a parturition in a woman in this condition can but result in an aggravation, the degree of which is logically dependent upon the character of the labor. The records show the degree of suffering during the labor was of more importance

than the length of time. This but serves to establish the correctness of the etiological factors mentioned. In primiparæ it was found more frequently after tedious labor ; in multiparæ more frequently after rapid labors. Laceration of the cervix or perineum has not apparently had any special significance.

The time of the formation of the clot is somewhat difficult to determine. I have seen cases in which I was satisfied the clot must have formed twenty-four hours after delivery : the majority certainly are formed much sooner, generally during the first six hours.

As would be supposed, relaxation of the uterine body is the local condition that favors the formation, but this is not true in all cases where relaxation supervenes. We all of us are familiar with more or less relaxation in which the blood escaping does not clot even in the vagina. There seems, therefore, to be another factor necessary to account for this blood clot of which we speak ; and this factor I believe consists in an irregular uterine relaxation. The reason blood does not clot as a rule until after expulsion from the vagina is due to the fact it is kept in motion until it is out; if allowed to stop a clot is the almost universal result. Hence we can conclude that there is some impediment to the free and immediate escape from the cavity. What the cause or causes of irregular uterine contraction are is veiled in obscurity. That it is not due to muscle tire is evident. We consequently must look to the motor power of the muscle for our explanation, and this we can place in the nervous system. This view but serves to strengthen our etiology, nerve-tire or exhaustion resulting in erratic and irregular innervation of the uterus as a whole. Relaxation here, contraction there, escape of blood, retention and clotting, give us our *materies morbi*. This view is still further strengthened by the position or relation of the clot in continuity to the openings in the sinuses of the placental site.

I have in two cases had the opportunity of examining blood clots in situ at post mortems of patients who have died after parturition; one of these died three days after delivery, the other a week after. In the first case after cutting

through the fundus while in situ a clot was seen apparently filling the cavity; struck by this condition I carefully removed the whole organ and laid open the anterior wall. It was this post-mortem that cleared up many doubts for me, and led me to make closer observation regarding this condition subsequently. It was found that the clot did not occupy the entire cavity of the uterus but only about the upper two-thirds, and entirely covered over the placental site. The lower two-thirds of the clot, which was about the size of the ordinary base ball, and of oblong shape was free, of a dirty brown color, soft, and giving forth a terrible odor: the free portion of the placental site was in the same condition. Separating the adherent portion from the upper part of the placental site, it was found that branches of this clot passed into the orifices of the sinuses and in a few of them pulled out and remained in connection with the mass of the clot. Sections through the placental site showed that the morbid or septicemic degeneration had invaded the free portions in the form of a suppurative phlebitis, while the adherent part was in an apparently healthy condition and color, not yet being involved in the degeneration. The upper part of the clot projecting into the cavity was for some distance in its substance in the same normal condition. In the other case this state of affairs was not near so perfect, but the white fibrinous part of the clot was in several places attached in the same manner. This less marked state was due to the greater inroads the septic power had made and age of the clots. In my opinion the manner in which these clots formed is plain. There had been a relaxation of the uterine wall at the site of adherence with contraction of the lower segment of the uterus or in fact all of it save this relatively small part, allowing the blood to escape, and while probably not all of it had been retained, enough was to start a clot, and the rest was easily accomplished. Hence we see the idea of irregular relaxation seems to be verified.

The symptomatology of blood-clot in the puerperal state, while not as well marked as it might be, is sufficient to raise a strong presumption of its presence.

The objective symptoms are: The condition of patient as

detailed above ; character of labor ; enlargement and in some cases varying consistency of uterine globe ; irregularity of lochia as regards quantity, at times nothing, at others free ; subsequent fetor of lochia, at which time it may be sanious or purulent ; when this supervenes the quantity is generally in excess of the normal at the time ; restlessness and anxiety ; subjective pain, paroxysmal, of an expulsive character, in primiparæ especially, generally explained by the patient as after-pains ; tenderness of globe after a time, weight and heaviness in pelvis and at times backache. If the clot is expelled, immediate relief followed by convalescence, if no complications have occurred.

The diagnosis can only positively be made by an examination with the finger in the uterus.

The constant tendency in the progress of the condition under favorable surroundings is toward the expulsion of the clot. This occurs at various times or may not occur at all ; the clot becoming liquefied or disintegrated and passing off in the lochia. I have seen clots retained a week or over. The majority are expelled within the first three days of the puerperal state, the expulsion being attended with considerable suffering. The clots present the varied consistence and color seen to take place in clots elsewhere ; some of the early ones are red and firm : from this they change to mottled, and ultimately are yellowish, while generally in a state of decomposition. The surface is smooth as a rule. I have seen clots which have been retained a week, expelled presenting a shaggy surface at places reminding one of the villi of the chorion. This is probably due to an attempt at organization.

The complications arising from the formation and retention of blood-clots cover the ground from *nihil* to grave. They are in brief those dangers due to decomposition and septicæmia. These dangers, as a matter of course, are greater when the surroundings of the patient are not good. In the constant fight made against septic infection in the St. Louis Female Hospital, which was an absolute necessity, due to an aggregation of all classes of disease under the same roof and in the same building, it is only just to say the condition referred to in this paper

would assume a graver aspect than in private practice. But for all that I am satisfied a recognition of the accident is of importance, and will account for several conditions which seem to be hard to explain. One of the first points to attend to is a close and careful inspection of the secundines after delivery. In this inspection not only must the placental surfaces be examined, but the membranes. All of us know the liability to separate and remain that is seen in the chorion, due to its position regarding the endometrium and the character of its structure; while the amnion being of much firmer texture and the inner side of the embryonic sac, practically it is the sac, is in a better state to be expelled. There can be no doubt but the adherence and retention of the parts of chorion will account for some of the cases of fetid lochia. But where the accoucheur has determined by careful examination a *clean delivery* of the secundines, the patient manifests symptoms mentioned above, there is certainly strong evidence that a blood-clot has formed and the fetid lochia is a result of its presence. The fact that everything was done in a cleanly, antiseptic manner, and our patient left in a perfect condition, as far as we are able to judge, is no positive safe-guard against the formation of a clot. I have been called upon to remove a clot which had formed under the apparently favorable termination of a labor; and before I recognized this complication during my early experience, I was at a loss to account for the condition I found developing in my patients. In this state of affairs is also seen a possible explanation of those late cases of septic infection, in which the patient has progressed to all intents and purposes fairly well, maybe for a week or two weeks, save involution has been very slow and unsatisfactory. In most of them the local expression is in the form of a sanious lochia, with or without any especial odor, followed by inflammation of the uterus itself, or the surrounding cellular tissue of a low form and localized. In short, blood-clots in the puerperal state, as a cause of complications, stand in the same relation as retention of parts of the secundines, save I do not believe they are much of a factor in late post-partum hemorrhage. This statement must of course be modified when it is applied to those of large size.

The question of treatment is one of importance, and can be, laid down in a rather dogmatic manner.

Trusting to nature will not hold. I have given this practice a fair trial, and I have as a result only regret and chagrin, and not eminent success. Here also I believe the use of ergot can and does do damage, unless a preparation is made for its use. When we consider the factors at work in a patient who has developed a blood-clot, I think this is plain.

The first thing to overcome is the erratic innervation and action of the uterus as a whole. While I should not hesitate immediately after delivery of the secundines, and where I was positive the cavity was empty, to use ergot in full doses, I would hesitate if a clot was suspected and found on examination to be present. In other words ergot should only be used after the conditions had been so changed that the natural order of things had been re-established. This can be done for the time at least and is done immediately after labor by the skilled accoucheur by methods too well known by all of you to need mention. Being present, with the uterus in hand, it can be so influenced that a natural order of things will result, with a tendency toward persistency.

The use of ergot, then, if the attendant is to use it, must be preceded by the use of other drugs such as quinine, viburnum prunifolium or opulus, the latter preferable, cimicifuga or valerian, all of which are antispasmodics and tend to co-ordinate nervous energy. But why all this loss of time and dosing? In these days of antisieptes and methods, the practice should be as follows: A thorough delivery of the clot by manual methods, and washing out with hot antiseptic intrauterine douche, combined with manipulations of the uterine globe until that well known tonic state of the uterine fibre is produced. Then ergot in full doses. Out the materies morbi must come: a perfect cleanliness of the cavity must be accomplished, in order to meet the dangers threatening our patient.

Any one who has attended puerperal septicemia and observed its protean influences, seen the suffering and witnessed the death, cannot compromise his conscience by any trusting to nature. As

I have elsewhere remarked it is an abuse of nature. Hence we see the treatment should be radical, and he who does so will not be called upon to remark "it might have been."

The conclusions we present in determining the presence and treatment of blood-clot in the puerperal state are as follows :

1. That the condition is one of import and the accoucheur should watch for it with the same degree of caution as is used against the retention of the secundines.

2. That the diagnosis can and should be made.

3. That more methodical and exact records should be kept with a view of placing the subject in a more important place in obstetrics than it has held in the past.

4. That the diagnosis once made the treatment should be radical immediate removal of clot and cleansing of the uterine cavity thereby following the indications of nature.

5. That drugs are inefficient as regards effect and time.

6. That ergot should be used only at the right time.

7. That safety of the patient will not allow any compromise.

3026 Pine Street.

THE SHAH OF PERSIA has authorized the American missionaries to establish at Teheran, a hospital in which, without regard to nationality or religion, all applicants for relief may be received for treatment. Dr. Torrence, who is physician to the mission, has been appointed director of the hospital. In appreciation of Dr. Torrence's zeal and devotion, applied gratuitously for many years in the relief of distress, the Shah has named him Grand Officer of the Order of the Lion and Sun of Persia.—*Med. Mission. Rec.* Sept. '87.

MEDICAL STUDENTS IN FIJI.—In the *Medical Missionary Record* for September is a picture of a class of nine native Fijians who are now studying medicine at the Suva Hospital, under the direction of the Health Officer of the capital of Fiji, where only fifty years ago all the natives were heathen and cannibals. The change in the character of these people is the direct result of the introduction there of the Christian religion through the agency of missionaries.

CASES FROM PRACTICE.

REMOVAL FROM THE LARYNX OF A TUMOR OF TWENTY-FIVE YEARS' GROWTH.

BY CHAS. A. TODD, M. D., *of the Faculty of the Missouri Medical College.*

[*Read before the St. Louis Medico-Chirurgical Society, Nov. 15, 1887.*]

The history given in this paper is of special interest apart from the mere surgical operation.

Mr. W., aged 50 years, came to me August 30, 1887, exhibiting a laryngeal growth which appeared to fill the larynx completely.

He gave this history: In 1854, just thirty-three years ago, his voice failed him. He had had a particularly strong, high voice, which had been trained by his father, a teacher of music, so that he might take part with the church choir in the English village where they lived. His father warned him at the time of change of the voice, against overtaxing it; but at an entertainment he was pressed to sing and attempted a yodel song, when his voice suddenly broke and never recovered. Mr. W. declares that from that time to the above date, August 1887, he has not been able to phonate. Eight years after this fatality he noticed a difficulty in breathing when the head was thrown back; there was an obstacle to deep respiration. He could feel a body "like the valve of a pump" move up and down when coughing, and during violent respiration while running. At such times he would have to hold the head bent forwards to get relief. There was no cough.

In 1862 this respiratory trouble became so marked that he went to the Birmingham general hospital for examination and advice. A large laryngeal polyp was diagnosed, and one of the staff tried

to remove it with forceps, then with a snare. Attempts at removal were made two or three times weekly for a period of ten weeks, but in vain; the doctor said he had not been able to get hold of it. The patient was once given a whiff of chloroform, but no other means were resorted to by way of anesthetic. The well known Dr. Mackenzie, of Guy's Hospital, London, was called in, who diagnosed a "growth" in the larynx. The house surgeon during the consultation introducing the finger felt the tumor and proposed trying the forceps again. The finger acting as a guide, the instrument laid hold of something and was withdrawn (Mr. W. says the nip hurt severely). Excessive hemorrhage instantly followed, so that the patient was put in bed, and brandy given. By night (the nip was given at 11 A. M.) he could not swallow on account of the swelling and pain; the bleeding had continued for two hours. He was fed through a stomach tube about ten days, and kept the bed several weeks. He remained in the hospital altogether thirteen weeks, when he returned home, not seeking further treatment there. At home he indulged in hydropathic treatment, and wet packs were applied for seven weeks; which, however, failed to suppress the tumor.

Mr. W. came to the United States in 1865, his breathing steadily getting to be the more obstructed. At Columbus, Ohio, he became assistant steward at the Deaf and Dumb Asylum, where he learned to use the sign language which he found a great convenience under his affliction.

In 1874 he became a resident of St. Louis, where he has since remained. The continuous growth of the tumor made itself evident through the increasing gravity of the symptoms of obstruction to respiration. Previous to my examination for eight to ten months he had been obliged to sleep in the sitting posture. If he fell backwards he would wake with a choking sensation. Sometimes this occurred six to twelve times in a night. A deep breath was an impossibility: naturally, a hoarse whisper was the only sound he could produce. His condition thus becoming desperate, he resolved to seek medical assistance again after this long interval.

The tumor had the appearance of that warty growth known as papilloma, and evidently sprang from the anterior part of the larynx and near the base of the epiglottis. It apparently completely filled the larynx. The patient was found on testing to possess good self-control, and I concluded to attempt the removal

of the whole mass by passing around it a noose of fine piano wire so arranged in a cannula as to act after the fashion of an *écraseur*. A saturated solution of cocaine applied with a brush to the parts secured complete quietude. The base included in the wire loop proved so very dense, that after sawing at it for several minutes with intervals of rest, the wire snapped leaving the tumor solidly fixed in place. No spasm occurred. I did not like to use the galvano-cautery under the circumstances, having to work so entirely in the dark, and was obliged to tear away as much as possible with the forceps. A good space was thus cleared so that the patient was enabled to breath freely and the danger of suffocation averted. The was no bleeding of consequence, rather to my surprise.

The next morning Mr. W—made his appearance in great delight over the relief to his respiration. I should state that his general condition was not good, he was much reduced in weight and depressed in spirit at the time of the operation—natural consequences of the state of things in the air passage. On this second visit I merely examined him and advised him to keep quiet at home the rest of the day; this was at about 11 A. M. The day was extremely hot, and on the way home, which was not distant, he experienced a light sun-stroke. This unfortunate accident confined him to his bed several days, and enfeebled him for the rest of the hot season.

As soon as he could bear it, I renewed the attack on the tumor, and as the dense base gradually underwent inflammatory softening, succeeded in clearing the larynx, leaving only the roughened surfaces whence the growth had sprung; and near the angle of the rima glottidis a particularly solid nodule that projected from the ventricle on the left side. The forceps slipped off the nodule as from bone, so resistant was it. After thus clearing the larynx, the left vocal cord was found much thickened and congested, while the left was nearly in natural condition posterior to the nodule that overlaid its most anterior portion and so hid it from view, Subsequently this nodule was torn away piecemeal. Judging by the surface irregularities in the larynx, the growth was attached just below the anterior third of the right cord, and below the angle of the rima, a part, as stated, also originating within the left ventricle. These different operations extended over several weeks, the patient being about all the time and attending to his business, which kept him out of doors a good deal. During the exposition he was irregular in attendance, and greatly retarded

matters in consequence and by exposure. Such a patient one would wish strictly confined to the house and under strict regimen.

His present condition, Nov. 15, is as follows: Right cord still swollen and some congested, with tendency to exhibit granulations at points of pressure; near the angle of the rima, recurrence of the out-growth from the ventricle, the voice is of fair strength and resonance, though rough and husky; it promises to be a deep base. The general health is perfect to appearance. There has been a considerable increase in weight. Tannic acid has been used to reduce the swelling; salt water gargle has been used daily most of the time.

CITY HOSPITAL REPORT.

BY H. C. DALTON, M. D., SUPERINTENDENT.

SUNSTROKE.—CHRONIC CEREBRAL MENINGITIS.—RECOVERY.

R. C., æt. 40, German, single, grocer. Patient claimed good family history, strong constitution and good general health. Asserted that he was only moderately addicted to drink. About July 20, 1887, he had a slight attack of sunstroke, effects of which lasted three days. July 30, after drinking a considerable quantity of spirits, he noticed irritability of the bladder, malaise, and general depression, when everything suddenly became dim before his eyes, and he lost consciousness. When admitted to the hospital, he was violently delirious; his temperature was much elevated (its record was lost); pulse 132 and feeble, respiration frequent but easy; pupils normal. In conformity with the treatment in vogue, he was given an ice cold bath, after which he was wrapped in sheets wrung out of cold water, and an ice-bag applied to his head.

This brought down the temperature, but did not immediately quiet the patient. Chloral and bromide of potash produced sleep for some hours, after which consciousness returned, but he remained very weak. Pyrexia returned shortly, persisted, recurred when reduced by active treatment, and to this was superadded a low muttering delirium, which seemed to have a close connection with the former alcoholic propensities. The prostration increased until death seemed inevitable, but the turning point was finally reached, induced to a great extent by careful alimentation and administration of tonics. His physical was more rapidly regained than his mental strength. A healthier body conduced to a healthier mind,

and, at the time of his discharge, September 17, he was virtually well. In regard to the cause of this near approach to dementia, which lasted for more than a month, it is questionable which should bear the greater responsibility the alcoholic habit or the influence of the heat.

SUNSTROKE FOLLOWED BY CEREBRAL MENINGITIS AND ŒDEMA OF THE PIA-MATER.—DEATH.—AUTOPSY.

George F., æt. 38, German, single, hostler, was admitted August 15, 1887. Patient was an habitual and excessive drinker. While partially under the influence of alcohol, he was suddenly seized with severe pain in the head and vertigo. He soon became unconscious, in which condition he was brought to the hospital. His skin was flushed, warm and moist, and flecked with petechiæ. The extremities were in a state of violent clonic convulsions. Involuntary evacuations of the bowel and bladder took place. The temperature at first 105.2° F. under antipyretic measures (cold bath, etc.) was reduced to 99.2° F. within an hour and a half. It afterwards rose some and had to be combated with the continuous wet pack. Unconsciousness lasted for eighteen hours, after which he was partially conscious. Two days later delirium, with the characteristics of alcoholism, developed. The temperature was then normal, but rose a day later, and after that continued elevated, notwithstanding the administration of cinchonidia and other antipyretics. He did not complain particularly of headache. Some days he would be entirely sensible and would relapse into a talkative delirium during the following night. Furuncles made their appearance on various portions of the body, and August 28, it was noticed that there was almost abolition of motion and sensation in the lower extremities. This was intensified into paralysis three days later, and also involved the arms. He gradually grew weaker, and the development of large bed sores hastened death, which occurred September 3, 1887.

Autopsy Fourteen Hours after Death.—The dura-mater was much congested and thickened; pia-mater markedly injected and generally edematous and opaque, containing in the basilar region and convexity several patches of adventitious tissue. The brain substance was slightly softer than normal, and was somewhat edematous throughout. There was a slight depression in the convexity in the right parietal region where a greater amount of effusion was present.

EDITORIAL.

MIGRAINE IN CHILDHOOD.

Dr. Wharton Sinkler, in a recent paper before the Philadelphia County Medical Society, says that genuine migraine is much more common in children than is generally realized, such attacks being often, by the laity and the profession also, attributed to some gastric disturbance from indiscretion in diet. He says that many begin to suffer from characteristic attacks when only seven or eight years old. Sometimes they disappear when full maturity is reached, but the attacks may continue through life. It is often the case that when migraine commences in early childhood the attacks become more intense with the advent of puberty, while, in a good many cases this period signalizes the commencement of the trouble.

Heredity has a marked influence in the etiology, the family history often having a neurotic character. "Improper food, bad atmosphere, and, above all, an insufficient amount of sleep with overtaxing of the brain, all tend to predispose to or directly bring on migraine."

Ocular defects also are frequently an important factor in causation. The close air of the school room and the lack of exercise, will account for some of these headaches. Migraine from eye-strain, he says, is not uncommon in children. Sex does not appear to influence in causation, but precocious sexual development is often an active cause, and sexual irritation may appear at a remarkably early age as the result of bad associations and influences. This affection is seldom found in robust and hearty children, but is most common in those who do not get enough fresh air, and who are thin and pale, or in those who think and read too much, who

do not romp and play, but prefer to sit with older people and drink in conversation far beyond their years.

The symptoms of migraine in children differ little, if at all, from those in adults. They may occur every two to six weeks or only once or twice a year. There may or may not be prodromic symptoms or auras. Anstie says it is common of all neuralgias of children to be frontal and to affect both sides simultaneously. There is often nausea throughout the attack, or it may terminate in vomiting, or a free flow of urine, or sometimes there are two or three diarrhetic stools. After the crisis is reached the child may fall asleep, and after a nap awaken well. In some cases there is no crisis but a gradual wearing off of the pain.

Treatment must be preventive and curative. If there be a neurotic family history, special pains must be used to secure as favorable hygienic conditions as possible. Ten hours sleep at night should be insisted on, and too long application to books should be prohibited. Out-door sports should be encouraged, and life in the country for several months in the year is to be preferred. "The diet should be abundant and nutritious, milk, eggs, soups and broths, with meat in moderation and the various cereals, and plenty of vegetables and fruit.

Over-stimulation and over-cramming in schools is specially to be avoided. Dr. Sinkler commends highly the modern introduction of training in manual art in the schools, as of great advantage. He strongly objects to taking young children to the theatre for amusement, "where not only the late hours and bad air are injurious but the impressions produced by the play, must be pernicious in the extreme."

If a child has already begun to have migraine, the most important measure is to attend to the general health. Change of air will often obtain relief from the attacks. Tonics and good feeding must be resorted to, if a change cannot be had. Codliver oil is often of the greatest possible value. If this cannot be tolerated

we must introduce fat in some other way. Cream and plenty of butter may be used.

Special antineuralgic drugs are seldom indicated in these cases, but sometimes he finds the bromides of great advantage, especially in children of a very nervous temperament, and in whom any effort at brain work causes headache. It should be given in small doses and continuously for some weeks.

One point of importance to which Dr. Sinkler calls attention is that in all cases of migraine in children we should look carefully to the condition of the teeth and have any unsound ones filled or removed.

TUMORS ILLUSTRATED FROM VEGETABLE PATHOLOGY.

In the Morton Lecture on "Cancer and Cancerous Diseases," delivered by Sir James Paget, Nov. 11, of the Royal College of Surgeons, *Brit. Med. Jour.* Nov. 19, he uses the following graphic illustration:

"The whole study of tumors may, indeed, find admirable illustration in vegetable pathology. For example, I think that some of the best evidences, even nearly the proofs, of the truth of Cohnheim's explanation of the origin of tumors, at least of the innocent ones, from portions of germinal tissue remaining undeveloped, may be seen in some of the xylomata or woody tumors which may be found on the trees, especially on beeches and cedar-trees; for in these it is often evident, and always probable, that they have grown from buds or 'sleeping eyes,' as they have been called, which have remained for a time dormant, inactive, enclosed within normal structures, and then have, as it were, awakened and grown, after a manner of their own, with good woody tissue, but separate and purposeless.

"Our museum has specimens of such tumors, oval or nearly

spherical masses of hard wood, well defined, concentrically laminated, either lying just beneath the bark of the branch or trunk in which they have grown, or nearly separated and cast out. Some of them like polypi or exostoses, have pedicles continuous with the proper wood of the tree, and have some little outstanding twigs or branchlets, outgrowths from the buds, in which themselves had their origin. And if these and the vast number of growths of the same kind observed in plants may illustrate the apparently spontaneous production of the innocent tumors, from germinal structures, delayed in their development, so may galls illustrate the influence of a virus in exciting morbid growths. They may, indeed, illustrate both the conditions requisite for the manifestation of a specific disease—the specific morbid material and the part appropriate to its morbid influence.

“Of these galls, which may fairly be called heterologous growths, as the xylomata may be called homologous, there are more than a thousand forms already known, and each form is produced by a different material, a different specific virus, as we may safely call it, inserted by a different species of insect in a leaf or some other part of a plant. The very nature of the virus which is usually inserted with the insect's egg is, I think, unknown; but so constant are its properties, and so exactly defined, that the specific characters of each insect are not more invariable than are those of the galls which it has made to grow. As we may describe the specific characters of each insect, so may we those of its appropriate gall; and so may we, therefore, speak of each form of gall as due to a specific virus. This is especially seen when different kinds of virus are inserted in similar textures, as when one finds three or four different galls produced by as many different insects on the same leaf. The oak leaves which I have here show these facts well. I am indebted for them to Mr. Rolfe, of the Royal Gardens, at Kew. Here are, as he has written, ten branchlets of the common oak, and their leaves bear, altogether, ten different forms of galls produced by ten species of insects; two, three or four forms being

on each leaf. The only variation shown is in some spangle galls formed on the leaf of a variety of the common oak, which are distinguished by their purple color, but not by any apparent difference of structure. Many of the galls are small, and may seem to you comparable with mere pustules formed of little more than disturbed natural structures; but they are not so; they are all outgrowths, in evident continuity with the natural structures, yet different from them, often very different. And this is more plainly seen in larger kinds of galls, each with its well defined characteristic shape and construction, and its minute structures differing from the healthy structures with which they are continuous, as widely as do cancerous structures from those of the parts in which they grow. And it may be observed that in all, whether small or large, the specific differences are marked by shape and pattern and other large characters, more than they are by any minute structures as yet discerned."

THE CORSET.

Dr. Robert G. Dickinson read a paper before the Brooklyn Pathological Society, April, 28, 1887, (*New York Med. Jour.*, Nov. 5, '84) in which he gives the results of a thorough and scientific examination of the question of pressure and displacement caused by the wearing of corsets, as is common with women of the present day, and has been for ages.

He refers to the history of the corset in the first place, noting the practice of wearing them by men, and later, that of putting them upon infants in the cradle, and then describing the methods he pursued in his investigations with the manometer, by making tracings of shadows of the same subject with and without corsets, verifying the same with caliper measurements, by comparing the vital capacity with and without corsets.

Among other interesting results which he has observed is a veri-

table thinning of the adipose layer of the abdominal wall at the area of the greatest pressure, while below the ring of constriction the fat accumulates. As he forcibly states it, "The woman who abhors 'a stomach,' yet adopts the most effective means of cultivating one." He states that while "flabby, old, or obese persons are especially prone to pile up panniculus adiposus below the navel, he has not found one case in the course of many examinations of stout young men in good condition, in whom this tendency was apparent, but that in them the tendency is usually to develop the fatty layer above the umbilicus more than below it." In eleven healthy women, who have been in the habit of wearing corsets, the fat below the navel has always been found to be more than twice as thick as that above. In two teachers of gymnastics who were measured for him by Dr. Eliza Mosher the fatty layer was thicker above.

Among the most important effects produced by the compression of corsets are found, of course, the influence which is exerted upon the pelvic floor and uterus. He found that the depression of the pelvic floor caused by tight lacing is twice as much as that caused by deep inspiration, and is often very close to the extreme yielding brought about by straining or bearing down. The depression of the uterus caused by tight lacing he found to be one third of an inch. This distance in itself seemed insignificant, and, as he states, "may only be considered of importance in view of the following facts:

"1. That this is almost the deepest position to which the structures can be forced by straining down.

"2. That the long continued action of the depressing force is exerted during the period of growth.

"3. In view of the results likely to ensue in case of weakened and enfeebled supports, in case of increased size and weight of the uterus—normally present during menstruation—and in case of incipient displacements, it naturally follows:

"4. That this forcing downward is sufficient to render the ute-

rine supports tense (be they ligament, "column," or pelvic surroundings in toto), and that in their taut condition any added or extra stress, like deep breathing, or exertion, or bending, might well be enough to each time slightly overstrain these stretched supports. Slowly and steadily as this force acts, yielding must in time occur.

"In fact Engel states that in every one of thirty autopsies in which evidences of tight lacing were found, prolapsus was present in some degree, except where adhesions had prevented it."

The conclusions reached by his studies thus far, he summarizes as follows:

"1. The maximum pressure at any one point was 1.625 pounds to the square inch. This was during inspiration. The maximum in quiet breathing was over the sixth and seventh cartilages, and was 0.625 pounds.

"2. The estimated total pressure of the corset varies between 30 and 80 pounds—in a loose corset about 35 pounds, in a tight corset 65 pounds.

"3. Within half a minute after clasping the corset such an adjustment occurs that a distinct fall in pressure results.

"4. The circumference of the waist is no criterion of tightness. The difference between the waist measure with and without corsets gives no direct clue either to the number of pounds pressure or to the diminution in vital capacity. Relaxation and habit seem to affect these factors largely.

"5. The expansion of the chest was found to be restricted one-fifth when the corset was on.

"6. The thoracic character of the breathing in women is largely due to corset wearing.

"7. The thoracic cavity is less affected by the corset than the abdomen.

"8. The abdominal wall is thinned and weakened by the pressure of stays.

"9. The pelvic floor is bulged downward by tight lacing one-third of an inch."

We hope that Dr. Dickinson will continue the series of studies which is of so much interest and value to the profession.

NEW TREATMENT OF WHOOPING COUGH.

M. Paul Cheron in *L'Union Médical* Oct. 18, gives a résumé of the modes of treatment of whooping cough that have recently come in vogue as well as modifications of former methods of treatment which have resulted from modern views of the pathogeny of the disease.

Among *antiparasitic medications* he naturally speaks of the use of phenic acid. Since 1874 when it was first recommended by Burchardt, a number of physicians in different countries have strongly recommended the use of inhalations of phenic acid by different methods, some using respirators or masks covering the mouth and nostrils, some using atomizers; some depending upon the inhalations alone, some combining the inhalations with internal medication.

Comparision of statistics seems to make it evident that inhalations of phenicated spray have shortened the duration of the disease. But it has been claimed by some, Hagenbach for example, that the benefit is due not to the phenic acid but to the action of the watery vapor, and some, as Vogel (of Munich) have denied the advantage of this mode of treatment.

This remedy has been given internally by Cory and by Suckling, who considers it as a veritable specific. To an infant of one year he gives two and one half centigrammes (one third grain) in a mixture of glycerine and peppermint water. In twenty cases so treated the duration did not exceed fifteen days.

Thymol has been used by evaporating in the rooms of the little patient a mixture containing this agent.

Salicylic acid has been recommended by several either by caus-

ing the patients to inhale a solution or by the internal administration of the remedy, or finally by insufflation.

Quinine salts has been tried by a number of practitioners internally or by insufflation into the nasal fossæ.

Thornton Parkes regards the sulphate of quinine as one of the most powerful medicaments against whooping cough. He administers every two hours a dessertspoonful of a solution containing two grammes to one hundred grammes of water, the doses being varied according to age

Sauerhering has employed the sulphate of quinine in small but repeated doses during the last ten years, and thinks highly of it.

He gives ten doses in four days varying from four centigrammes for nurslings to fifty centgr. for adults. The first evening he gives one dose and three each succeeding day. Then after resting for two days he commences a second series. Generally two series are sufficient but the treatment can be continued if necessary. He recommends to await the period of violent paroxysms before administering the remedy. After the third series the paroxysms are reduced to one or two, and finally disappear.

Kolover throws against the velum of the palate and the pillars of the fauces by means of a little syringe a solution of quinine (3j—5vj) the application being repeated every two hours during the first three days and every three hours afterward. At the end of the first week he claims that the cough has entirely disappeared.

Binz claims that it is necessary to give large doses, and that failure in the use of this agent is due to the use of too small doses. The tannate is the best salt on account of being tasteless, but it must contain at least twenty-four per cent of quinine. He directs it daily in doses such that each day the patient will take four times as many decigrammes of the salt as he counts years of age. He claims a marked amelioration on the third day of treatment.

Moncorvo uses an aqueous solution of resorcin (one-third of one per cent) with which he paints the glottis, preceding each application with one of cocaine. He claims excellent results from this

treatment. W. Hedges employed spraying with a two per cent solution for four or five minutes every three hours. Adults who followed out the treatment closely were cured in less than nine days. In infants the method is difficult of application.

Essence of turpentine by inhalation has been recommended by several practitioners.

The treatment of sulphurous acid is recommended by Mohn. It is applied by fumigating the bed room and bedding by burning sulphur (25 grammes for each cubic metre of space) in the morning and keeping the vapor shut in closely for five hours, then thoroughly airing the apartments. Then at night the patients are returned to their thoroughly disinfected room. Mohn claims that this procedure effects a cure of the disease. Kaurin tested it in nineteen cases, and found that while the night following the fumigation was always good, the disease speedily returned, and in only four cases was any permanent amelioration observed.

Treatment applied to the Nasal Mucous Membrane, has been recommended by a number of practitioners, who claim that the characteristic feature of the disease in its first period is an irritation of the mucous membrane of the posterior part of the nasopharynx, due to a pathogenic microbe and that this irritation determines by reflex action the characteristic attacks of cough.

Michael experimented with a number of powders, and found specially favorable results from the employment of chlorhydrate of quinia, powdered benzoin, tannin and powdered marble. The success with the last substance proves that a part of the action of the powders is purely mechanical. The powder of bezoin is the one which has given the best results. In 55 cases treated with a mixture of quinine and benzoin, the attacks were much reduced in the first days in 43 patients: 8 were cured in three days, 6 in a week, 6 in one month. There were six relapses.

The treatment is specially efficacious when adopted at the commencement of the attack. Michael believes that the treatment may be actually abortive. The first insufflation of benzoin powder

often causes a paroxysm of coughing, which may be avoided by making the little operation at the moment of expiration, and afterwards the patients are quickly accustomed to it. One insufflation a day is enough and a simple glass tube will answer for an instrument: it is better, however, to use an insufflator. The seasons have a great influence upon the effect of treatment, and when the temperature remains uniform and warm the cure is more rapid.

At the Congress at Wiesbaden in 1887, Michael gave some statistics based upon 250 cases. In 25 per cent of cases the treatment failed. In the rest it was more or less effective and sometimes surprising. In 7 per cent of the cases he obtained cure in two or three days: in 23 per cent in less than twenty days. The mortality was one per cent while generally in Hamburg, the mortality from this disease is from 11 to 18 per cent. If the number of attacks is unchanged during the first eight days or increases a little, the treatment is ineffective, and it is useless to continue it further. If the number of paroxysms diminishes, it is safe to predict a mild course of the disease, while, if there is a decided augmentation of them, the disease will run a brief course.

Boehem, of Bonn, advises a mixture of chlorhydrate of quinine and gum Arabic in the proportion of 3 to 1. The majority of his patients were cured in three weeks. He has also used a powder composed of one-hundred parts of chlorhydrate of quinine and five parts of pulverized benzoin. Moizaro has used a powder composed of five grammes each of powdered benzoin and salicylate of bismuth, with one gramme of sulphate of quinine. He administers it with a simple tube of caoutchouc, a little of the powder being placed in one end which is introduced into the nostril. There is no pain and the slight resistance which infants offer is readily overcome. He does not claim that this aborts the disease even when commenced early, but it much diminishes the paroxysms.

Cartaz, by using a mixture of two grammes of subnitrate of bismuth with four grammes of benzoin has attained the same results, Gunder employed equal parts of boric acid and roasted coffee with

Galante's nasal insufflator. In two to six days the severity of the paroxysms was notably diminished, and the number of them was reduced from fifteen or twenty to three or four in twenty-four hours. This result being attained the affection remains stationary, and definite cure takes place only after two or three weeks. Good sanitary conditions aid much in the restoration to health.

Modifiers of the Mucous Membrane.—M. Netter, of Nantes, advises the use of oxymel of squill as follows. At half past three o'clock, give the child a lunch: between five and six o'clock give a teaspoonful of oxymel every ten minutes. For nursing infants twenty to forty drops are sufficient, four to five spoonfuls are necessary at three years, six to seven above that age and seven to eight for an adult. It is necessary to continue this every day until the cessation of the paroxysms. After two or three days, the cough becomes loose, and then the cure depends upon the age of the infant, according as he expectorates or swallows the sputa. Below three years of age it is useful to facilitate the expulsion of the mucus by an emetic. The testimony of others varies as to the value of this treatment.

M. Bilhaut has recommended the tincture, fluid extract or syrup of grindelia robusta, and claimed good results, but others have been less successful.

Anesthetics.—Painting the fauces with cocaine has been practised by Pott and Prior, who report diminution of severity and frequency of the attacks and abbreviation of the duration of the disease. Others report alleviation of the paroxysms but no shortening of the disease. Still others claim to have found the disease to be shortened as well as made less severe. M. Cheron thinks the use of cocaine in whooping cough not free from danger.

Among the medicaments which though in use for a long time have been of late the object of new researches, M. Cheron calls attention especially to belladonna, which M. Cadet de Gassicourt considers the foundation of treatment of whooping cough. He has found it most effective when so administered as rapidly to cause

symptoms of poisoning. He has prescribed it in doses of one to four or five grammes in twenty-four hours. Trousseau also recommended massive doses, but these speedily establish tolerance, and give no better results than fractional doses. One should give then of the extract 1 to 5 centigrammes, in twenty-four hours or of the neutral sulphate of atropine, 1 milligramme ($\frac{1}{64}$ grain) at the maximum.

Concurrently with the belladonna Cadet de Gassicourt recommends inhalations of ether during the paroxysms administered by pouring a few drops on a handkerchief. Unfortunately many children will not submit to this. He has found the syrup of narceine (2 centgr. a day) to diminish the number of paroxysms.

In reviewing the subject M. Cheron remarks that most of these new methods of treatment lack sufficient confirmation. In his opinion it is best to rely upon the classical methods of treatment in most cases, and some of these new methods, such as the nasal insufflations or applications of cocaine, may prove to be of value. He thinks it would be a grave error to neglect for them the old modes of treatment which have been proven successful in times past.

MOSES GUNN, M. D., LL. D., died in Chicago, Nov. 4, 1887, at the age of sixty-five years. He was a native of New York state, graduating in 1846 at the Geneva Medical College. He first settled at Ann Arbor, Mich., where he taught anatomy, and on the organization of the university he was appointed to the chair of anatomy and surgery, and the latter branch he taught for fifteen years. In 1853 he removed to Detroit. In 1861 he went into the army, seeing much active service with Gen. McClellan's army. In 1867, having settled in Chicago, he succeeded Daniel Brainard as Professor of Surgery in Rush Medical College.

He was a popular and eminent teacher, an expert operator, especially in plastic surgery.

BOOK REVIEWS AND NOTICES.

ANATOMY, Descriptive and Surgical. By HENRY GRAY. F. R. S., etc. Edited by T. PICKERING PICK. A New American from the eleventh English edition, Thoroughly revised and re-edited with additions by WILLIAM W. KEEN, M. D., etc., to which is added Landmarks, Medical and Surgical, By LUTHER HOLDEN, F.R.C.S., with additions by WM. W. KEEN, M. D., etc. Philadelphia. Lea Brothers & Co., 1887. Roy. 8vo., pp. 1100, sheep. (St. Louis. J. L. Boland & Co.)

For many years Gray's Anatomy has been regarded as *the* authority and text-book *par excellence* by nearly all teachers of anatomy and by students who had made sufficient advancement to compare intelligently different works.

Many would have thought it utterly unnecessary to revise or edit the work, supposing that a simple reissue of a work which had been long so satisfactory would be all sufficient.

However, the American publishers, in the determination to improve, if possible, on the excellent, requested Prof. Keen to thoroughly revise the work. This he has done, making some necessary corrections of typographical errors of the English sheets and in the cuts, adding many cross references and modifying the chapter on Development (revised by Prof. Ryder at the request of Prof. Keen) and that on the Anatomy of the Brain, in both of which departments modern investigations necessitated material alterations both of text and illustration.

One hundred and thirteen new engravings have been added, including a series of sections through important joints, a series of sections through the frozen trunk, extremities and female pelvis.

Wherever it was deemed advantageous to introduce colors for the purpose of distinguishing veins, arteries and nerves, this has been done.

Prof. Keen has also introduced a valuable chapter "On the Systematic Use of the Living Model in Teaching Anatomy," encouraging the student to use his own person as an ever present living model, a valuable practice which we remember was inculcated upon

his students by Prof. Clendenin of Cincinnati, in our student days.

The use of the electric current for demonstrating the action of the individual muscles is another valuable method of making teaching practical, to which Prof. Keen calls attention here.

Certainly the Lea Brothers have done themselves great credit in bringing out such an elegant edition of this classical work.

DISEASES OF THE FEMALE MAMMARY GLANDS, by TH. BILLROTH, M. D., of Vienna. and NEW GROWTHS OF THE UTERUS, by A. GUSSEROW, M. D., of Berlin. Illustrated. These two works constitute Vol. IX. of the "Cyclopedia of Obstetrics and Gynecology" (12 vols. price \$16.50), issued monthly during 1887. New York, Wm. Wood & Co.

In the first part of this volume, Prof. Billroth discusses at length the various diseases of the mammary glands, the greater portion of the space being given to the various tumors, especially the malignant growths.

In the discussion of New Growths of the Uterus by Prof. Gusserow, our readers will observe that the results obtained by the use of electricity in the hands of Apostoli and by others in our own country are not mentioned, probably because of too recent date. Certainly a consideration of the treatment of uterine fibromata is incomplete and inadequate at the present time which does not call attention to this most effective mode of treatment that has been brought to the attention of the profession.

Aside from this omission as to treatment the treatise is thorough and satisfactory and well worthy a place in the "Cyclopedia of Obstetrics and Gynecology."

A HANDBOOK OF GENERAL AND OPERATIVE GYNECOLOGY. Volumes I and II. By DR. A. HEGAR (University of Freiburg) and DR. R. KALTENBACH (University of Giessen). In two volumes. These are also Vols. VI and VII of "A Cyclopedia of Obstetrics and Gynecology" (12 vols., price \$16.50) issued monthly during 1887. New York, Wm. Wood & Co.

In volume I professor Hegar describes the various methods of gynecological examination both without and with instruments, and minor operations. Prof. Kaltenbach discusses operations upon the ovaries including ovariectomy for the removal of ovaries which have undergone cystic degeneration, while Hegar, whose work is so well known in connection with the operation commonly known in this country as Battey's, describes this operation under the title "Castration," giving a full history of the operation, discussing at length

its conditions and indications, and then giving minutely the details of operative technique.

The same author continues, in the second volume, a consideration of operative procedures upon the tubes.

Kaltenbach follows with an account of the operations upon the uterus, total extirpation of the uterus, extirpation of fibroid tumors, treatment of inversion, division of the cervix and its counterpart, Emmet's operation, etc. Then follow operations on the broad ligaments, operations on the round ligaments, operations on the vagina, operations for urinary fistulæ, all by Kaltenbach, as is also the final chapter on operations on the vulva and perineum, while chapter VII. on operations for the cure of prolapse of the vagina and uterus and for the restoration of the vaginal sphincter apparatus is contributed by Prof. Hegar.

The two volumes together form a very complete work on operative gynecology.

DISEASES OF THE HEART. By DUJARDIN-BEAUMETZ, M. D., Translated by E. P. HURD, M. D. Detroit, Geo. S. Davis, 1887, Vols. I and II., 16mo., paper, 25 cents each. (Physicians' Leisure Library.)

M. Dujardin-Beaumetz is among the most prolific of the writers on therapeutics in the present day, and American readers are largely indebted to Dr. Hurd for making his lectures available to them.

In the present volumes the author does not claim to have added much that is new to the established treatment of valvular affections," but has aimed to lay down rules and give directions which will enable the practitioner to administer the cardiac medicaments with the greatest chance of success and the least risk.

The volumes contains much valuable information and helpful suggestions for the treatment of the class of disease under consideration, and the style of the author is particularly pleasing.

TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS. Vol. I., 1886, 8vo., pp. 261. Vol. II., 1887, pp. 254, cloth.

The papers read before the two meetings of this Association which have already been held are among the most valuable that have appeared in any American publication in the two years since the Association was organized. The members of the Association are among the most able of our American practitioners and among

the most diligent and earnest in pushing forward original investigation.

Among the most valuable of the papers contained in these volumes are that by Dr. W. T. Councilman, of Baltimore, on "Certain Elements found in the Blood in Cases of Malarial Fever," "The Bacillus of Typhoid Fever," by Dr. Geo. M. Sternberg; "Peri-uterine Inflammation," by Wm. Polk, M. D., and Dr. Porcher's paper on the "Management of Typhoid Fever" in Vol. I. and in Vol. II. the papers by Dr. Howard "On Hepatic Cirrhosis in Children," "The Antipyretic Treatment of Fevers," by Prof. H. C. Wood, "Antipyrin and Thalline in Typhoid Fever," by Prof. Minot, the several papers on Bergeon's Treatment by Gaseous Enemata, and Dr. Atkinson's paper on "Forms of Typhoid Fever, Simulating Remittent Malarial Fever." We predict that the successive volumes of the Transactions of this association will constitute a very valuable contribution to medical literature which it will be well worth while for any physician or any medical library to possess.

DRUITT'S SURGEON'S VADE MECUM. A Manual of Modern Surgery. Edited by STANLEY BOYD, M.B., F.R.C.S., etc. Twelfth edition, with three hundred and seventy-three wood engravings. Philadelphia, Lea Brothers & Co., 1887, 8vo., pp. 985; cloth, \$4.00; sheep, \$5.00. St. Louis, J. L. Boland.

The preceding edition of this work was issued in 1877, and a comparison of that with the present volume will give a good illustration of the changes and advances made in the practice of surgery during these ten years. As therein set forth, antiseptic surgery was not then generally accepted; deodorizers were made use of to overcome the stench from a suppurating stump or other wound, and ligatures were left hanging from wounds.

The present edition has been almost entirely rewritten and has been considerably enlarged; and in its present form the volume will doubtless maintain the reputation which for many years the work held among American practitioners.

Part I treats of surgical diseases in general, and gives a brief account of bacteriology as now taught. Part II. discusses injuries in general. The method of conducting an operation with usual antiseptic precautions is described in this part. Part III. treats of the injuries and surgical diseases of the various tissues, organs and regions, and occupies about two-thirds of the whole volume.

DIARRHEA AND DYSENTERY. Modern Views of their Pathology and Treatment. By A. B. PALMER, M. D. Detroit. Geo. S. Davis. 1887. 16mo.; pp. 128, paper, 25 cents. (Physicians' Leisure Library.)

This little volume gives clearly and concisely the views of the best modern practitioners, both as to the pathology and treatment of diarrheas and dysenteries.

The author gives not only his own views and practice, but also details those of other eminent practitioners, and has given us a volume that is both readable and reliable as a guide in practice.

TRACTS ON MASSAGE. No. II. THE PHYSIOLOGICAL EFFECTS OF MASSAGE. No. III. THE USES OF MASSAGE. Translated from the German of Rubmayr, with notes, by BENJ. LEE, M. D., Ph. D., etc., Philadelphia, 1885, 1887, 12mo., pp. 46-44, stiff paper, 25 cents each.

Dr. Lee is an enthusiastic advocate of massage, and has given these translations from the German as the most effective method of calling attention to the agency which he has found so valuable in treatment. The subject is one which is attracting more attention than heretofore in this country and the publication is timely.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION. Vol. V. Edited by J. EWING MEARS, M. D., Recorder of the Association, Philadelphia: Printed for the Association and for sale by P. Blakiston, Son & Co., 1887; 8vo.; pp. 386; cloth.

This fifth volume of Transactions of the American Surgical Association is published in the same handsome style as those which have preceded it, and the contents compare very well with those of former years.

It is a matter of interest, as bearing upon the importance attaching to surgery of the abdominal cavity at the present time, to note that five out of twenty papers presented to the Association discussed matters pertaining to this department of surgery. Dr. Nancrede's paper, "Should Laparotomy be done for Penetrating Gunshot Wounds of the Abdomen Involving the Viscera?" is an able presentation of the present status of this still debatable question.

Dr. Gross's paper on "The Prognosis of Sarcomata of the Breast" is a specially interesting and valuable one.

TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION. Nineteenth annual session held at Austin, Texas, April 26, 27, 28 and 29, 1887. 8vo., pp. 437, paper.

Texas is the largest state in the Union, and her medical society

publishes the largest and one of the best volumes of transactions that come to us yearly.

The present volume contains a large number of interesting reports of cases and some carefully prepared papers.

PATHOLOGY AND TREATMENT OF GONORRHEA. By J. L. MILTON, New York, Wm. Wood & Co., 1887, 8vo., pp. 474, cloth.

Three hundred pages of the volume are devoted to the discussion of gonorrhea. Most of the material here presented has appeared before in previous editions or in papers in medical journals, while several chapters are entirely new, viz., those on the gonorrheal affections of serous membranes, heart, etc.

Mr. Milton is not prepared to accept the theory of causation of gonorrhea which makes the gonococcus of Neisser the essential causative agent. In the chapter on treatment the author gives a careful comparison of results attained by different modes of treatment with definite statistics. This is an exhaustive chapter and a very valuable one.

Mr. Milton regards spermatorrhea as a distinct disease, not a mere symptom arising principally from a morbid imagination.

The book is one which we take pleasure in commending to our readers.

DISEASES OF THE BLOOD AND NUTRITION. AND INFECTIOUS DISEASES; being Vol. IV. of "A Handbook of Practical Medicine," by Dr. HERMANN EICHHORST, and Vol. XII. of Wood's Library for 1886 (completing the set, price of set, \$15.) Illustrated. New York, Wm. Wood & Co.

The same painstaking care in description and faithful record of personal observations and study of the works of other writers characterize this volume as have characterized the preceding ones, making the set an exceedingly valuable work for reference by the general practitioner.

SEXUAL IMPOTENCE in the Male and Female. By WM. A. HAMMOND, M. D. Detroit, Geo. S. Davis, 1887, 8vo., pp. 305, cloth.

Probably no practitioner in our country has had so ample opportunity for observation of the class of cases discussed in this volume as has its author, who embodies in it the results of his own observation, while at the same time giving evidence of familiarity with the writings of others on the same subject.

The first part of the volume was published some three years ago

as one number of the Bermingham Library. The chapters on the affection, as it appears in woman, are added in the present edition.

A COMPEND OF ELECTRICITY and its Medical and Surgical Uses. By CHAS. F. MASON, M. D., with an introduction by CHAS. H. MAY, M. D. Philadelphia, P. Blakiston, Son & Co., 1887, 12mo., pp. 108, cloth, \$1.00.

An exceedingly condensed account of the general facts upon which the use of electricity depends, and of the principles involved in its application to the practice of medicine.

We use the expression "exceedingly condensed" advisedly, for we think that the process of condensation has been carried so far as to make the volume of little value either to student or practitioner.

WHAT TO DO IN CASES OF POISONING. By Wm. MURRELL, M. D., F. R. C. P., etc. First American from the Fifth English edition. Edited by Frank Woodbury, M. D. Medical Register Co., Philadelphia, 1887, 12mo., pp. 158, cloth, \$1.00.

A thoroughly well prepared and practical volume which should be on the table or book shelf of every physician, ready for easy reference at any time. Dr. Murrell is one of the ablest therapeutists and toxicologists in England, and he writes clearly and forcibly. The book is thoroughly good.

THE PRINCIPLES OF THEORETICAL CHEMISTRY, with Special Reference to the Constitution of Chemical Compounds. By IRA REMSEN. Third edition, enlarged and thoroughly revised. Philadelphia, Lea Brothers & Co., 1887, 12mo., pp. 318, cloth, \$2.00

Prof. Remsen has given us here a work which is not intended as a guide for laboratory work, but as a discussion of the theory of chemical principles which should be familiar to the chemist and physician.

The work is carefully prepared and well written, and is one that we should be glad to see in the library of every student who wishes to be thoroughly grounded in the principles underlying his professional work.

PHYSIOLOGICAL LABORATORY. Harvard Medical School, Boston, Collected Papers, II. 1880-1886. For private circulation.

This little volume is a collection of papers, recounting the original work done in the Harvard Medical School Physiological Laboratory during the years 1880-1886. All of them have appeared before in various scientific and medical publications, but as col-

lected here they form a very creditable record of original investigation.

Among the papers of special interest to physicians we note, "A Comparison of Sight and Touch," by H. P. Bowditch, M. D., and Wm. F. Southard, M. D.; "Note on the Production of the Second Heart Sound," by C. E. Webster; "Optical Illusions of Motion," by H. P. Bowditch; "Experimental Researches on the Tension of the vocal bands," by F. H. Hooper, M. D.

MANUAL OF CLINICAL DIAGNOSIS. By DR. OTTO SEIFERT and DR. FRIEDERICH MUELLER. Third edition, Revised and Corrected by DR. FRIEDERICH MUELLER. Translated with the permission of the author by WM. B. CANFIELD, A. M., M. D., (Berlin), etc. With sixty illustrations, New York and London. G. P. Putnam's Sons, 1887, 12mo., pp. 173. cloth.

This little volume, which has reached its third edition in Germany, seems to us to have admirably filled the place intended by its author, as set forth in the preface, viz., to give "in an epitomized form the different methods of examination, as well as a convenient collection of those data and figures which should always be familiar to the physician and student."

It is a book that we take pleasure in commending to our readers.

THE STUDENT'S MANUAL OF VENEREAL DISEASES. Being a concise Description of those Affections and of the Treatment. By BERKELEY HILL, M. D., and ARTHUR COOPER, M. D. Fourth edition, Revised. Philadelphia. P. Blakiston, Son & Co., 1886. 12mo., pp. 132, cloth, \$1.00.

The descriptions in this little volume are terse and yet distinct, and there is probably as much condensed into their pages as can be given on this subject in such brief space. We cannot advise anyone to depend upon such a work as this for thorough information, but as a help in reviewing or refreshing knowledge gained from more thorough treatises it is good.

APHORISMS IN DISEASES OF THE RECTUM. By W. E. RYAN, M. D., Baltimore. Published by the author, 1886, 12mo., pp. 102, cloth.

The author has given us here a very readable dissertation on the various diseases of the rectum.

We doubt whether the experience of others will confirm his statement, "*So all conditions of piles*, no difference how long they have existed, nor how bad you find them at time of examination are

curable; and they are curable without the use of either knife or ligature, and without the use of anesthetics; there is no delay from business, nor is there danger connected with the treatment."

The directions as to the method of examination of rectal affections are good. The method of treatment of piles is by the injection of a fluid consisting of olive oil, oil of ergot, oil of cocaine and carbolic acid.

That the treatment is efficient for a large proportion of cases of hemorrhoids we do not doubt, but we do not believe that it is applicable to every case.

The author has given clearly the distinction between the different forms of rectal diseases, and gives concisely a treatment for each.

PHYSICIANS' DOSE AND SYMPTOM BOOK, Containing the Doses and Uses of all the Principal Articles of the *Materia Medica*, arranged in Alphabetical order: also Tables of Weights and Measures, Rules to Proportion the Doses of Medicine, Common Abbreviations used in writing Prescriptions, List of Incompatibles, Hints on Prescription Writing, Tables of Poisons and Antidotes, Hints on Treatment, Tables of Symptoms, etc. By JOSEPH H. WYETHE, M. D., etc. Seventeenth edition, completely revised and enlarged. Philadelphia. P. Blakiston, Son & Co., 1887. 32mo., pp. 226, cloth. (St. Louis, S. M. Simpson & Co.)

The above enumeration of the contents, as given on the title page, sets forth plainly the character of this little volume, and the fact that this is the seventeenth edition shows that it has "met a felt want" among students and physicians. We believe it to be the best of its class.

THE MEDICAL STUDENT'S ESSENTIALS OF PHYSICS AND CHEMISTRY, Introductory Lessons in Organic Chemistry. By CONDICT W. CUTLER, M. S., M. D., etc. New York, J. H. Vail & Co., 1887. 32mo., pp. 140-192-121.

This little volume is intended simply as a pocket book for the medical student, enabling him thereby to improve otherwise waste minutes by studying the principles to which attention has been directed in the lectures which he attends in his first course, and in reviewing his work for examination.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Manual of Clinical Diagnosis. By Dr. Otto Seifert and Dr. Friedrich Mueller. Third edition. Revised and Corrected by Dr. Friedrich Mueller. Translated by W. B. Canfield, A. M., M. D., etc., with sixty illustrations. New York and London, G.P. Putnam's Son, 1887, 12mo., pp. 173, cloth, \$1.75. (Evans Book Co.)—Functional Nervous Diseases, Their Causes and their Treatment. By Geo. T. Stevens, M. D., etc. New York, D. Appleton & Co., 1887. 8vo., pp. 217, cloth, \$2.50. (J. L. Boland.)—Human Physiology. By H. C. Chapman. Philadelphia, Lea Brothers, 1887, 8vo., pp. 945, sheep. (Simpson.)—Organic Materia Medica. J. M. Maisch. Phila., Lea Bros. & Co., 1887, 12mo., pp. 532; cloth.—Handbook of Treatment. By Wm. Aitkin. Edited by A. D. Rockwell, N. Y., A. B. Treat, 1887, 12mo., pp. 444, cloth, mail.—Transactions of the American Surgical Association. Edited by J. Ewing Mears, M. D., Philadelphia, P. Blakiston, Son & Co., 1887, 8vo., pp. 386, cloth.

PAMPHLETS AND REPRINTS.—Ovarian Tumors and Remarks on Abdominal Surgery, etc., by Edward Borek, A. M., M. D., St. Louis, Mo., 1887.—The Anatomy and Physiology of the Recurrent Laryngeal Nerves, by Franklin H. Hooper, M. D., etc. (N. Y. Med. Jour., July 9, 16, 23 and Aug. 6, 1887.)—Comparison between the Surgical Diseases of the White and Colored Races. By Louis McLane Tiffany, M. D. (Trans. Am. Surg. Ass'n.)—The True Nature and Definition of Insanity, by C. H. Hughes, M. D. (Alienist and Neurologist.)—Clinical Report of Surgical Cases Operated upon by Prof. A. C. Bernays. Reported by Dr. W. V. Kingsbury. (Int. Synop. of Med. and Surg.)—Address at Opening of Memphis Hospital Medical College. Oct. 4, 1878. By T. J. Crofford, M. D. (Miss. Valley Med. Mo.)—Contributions to Gynecology, Fasciculus I. The Galvanic Treatment of Uterine Fibroids, by Ephraim Cutter, A. M., M. D., etc. New York, W. A. Kellogg, 1887, 8vo., pp. 73, paper.—Four Months among the Surgeons of Europe, by N. Senn, M. D., etc. (Jour. of Am. Med. Ass'n.)—Oxygen as a Therapeutic Agent, by P. D. Rothwell, M. D., etc., 8vo., pp. 74, paper, 50 cents.

BURTON MEDICAL COLLEGE is the title under which an application was made for a charter to the Court of Common Pleas of Philadelphia, Nov. 1, 1887.

TRANSLATION.

RETRACTION OF THE PALMAR APONEUROSIS AND ITS TREATMENT.¹

BY PROF. TRELAT.

I present to you today a man, æt. 47, a baker, who came under our care last November, for a deformity of the hands which interfered materially with the exercise of his business. An instant sufficed for the recognition of Dupuytren's disease. About 1825 the surgeon of Hôtel Dieu gave the first description of it, and recognizing the alteration at the site of the palmar aponeurosis, he proposed to lay open its too prominent bands.

Our patient presented characteristic alterations in both hands. They had commenced three years ago in the left hand where they were more marked: a year since the right commenced to be deformed. On both sides the ring finger was the most affected: in the left hand it was strongly flexed upon the palm of the hand, the phalanges were bent in the one upon the other. When one wished to straighten the finger a firm, absolutely invincible resistance was encountered. This movement caused to appear at the base of the finger, in the palm, a prominent cord extending toward the wrist; raised by this band the skin, thickened and indurated, formed a series of prominences separated by deep grooves, and attached strongly to the parts underneath. One could even seize all the deformed part, and on giving it some lateral motion the finger being left to itself, determine that it was independent of the flexor tendons. At the base of the finger two prominent tracts extended upon the sides of the first phalanx.

In the right hand the ring finger was only a little inclined forward; the base of the finger was drawn toward the palm by a double band, the end of which was sunk in the lower palmar fold,

¹Clinical lecture reported by Dr. Barette, chief of clinic.

and whose sides were protected by the interdigital cushions of fat, which were more prominent than usual. From the outer edge of the band could be plainly seen a prolongation to the cubital edge of the first phalanx of the middle finger.

If you recall the arrangement of the palmar aponeurosis, its fibres radiating in fan shape toward the bases of the fingers, its transverse fibres and the superficial tracts or prolongations which fix it to the deep face of the skin of the hand, especially at the site of its permanent folds, you can easily interpret the lesions before us. Dissection also shows irrefutably that it is the aponeurosis which is affected and not the flexor tendons.

In our patient the lesion has especially affected the ring finger of each hand. Ordinarily it commences with the little finger and remains for a long time, always indeed in many subjects, limited to these two fingers. However it may affect the others, even the thumb.

Heredity, often mentioned, appears to be here without importance. The father of our patient died very old; he had suffered for a long time. His mother died young of phthisis.

Note again, in passing, that this is an affection of middle age, much more rare in women than in men. Among the cases which I have observed the youngest patient was twenty-three years old: in the different statistics I have found as extreme figures 18 and 70 years.

It is quite difficult to determine the causes which determine the retraction of the palmar aponeurosis. One has suggested repeated traumatisms, or rather a sort of chronic contusion of the palm of the hand produced by the handle of a tool: however, men practising the liberal professions are affected by it. A more careful observation has established the relation between this and certain general states. Rheumatism, already charged with it by Plater in the seventeenth century, and 'gout, accused by Behier (de Saint-Malo) and Adams, seem to hold the principal place. Marchal (de Calvi) has noted its coincidence with diabetes. Lancereaux has connected it with herpetism, but both these affections are included in the category of the uric acid diathesis. Twice already I have been able to determine a succession of rheumatismal manifestations in the fibrous tissues associated with Dupuytren's retraction.

A gentleman of my private clientele showed me one day a fibrous thickening of the periarticular tissues of the articulation of the

second with the third phalanx of the left index finger: some time afterwards a characteristic retraction of the palmar aponeurosis supervened.

In one of my confrères, a hospital associate, I have detected a succession of absolutely identical disorders.

More recently M. Lancereaux has invoked a nervous origin: the sclerosis of the tissues seems to suggest a trophic trouble analogous to scleroderma. Noble Smith sees therein an irritative lesion of the nervous system of which the retraction of the great palmar tendon would be the proof in certain cases.

Whatever be the outcome of these discussions as to pathogeny, the vocation of baker which our patient exercises, does not seem to specially fatigue the palm of the hand. He shows no symptom of locomotor ataxia; he is not diabetic, but he has evident characteristics of a rheumatismal constitution although he has never had pronounced attacks. His father was rheumatic; the metatarsophalangeal articulations of his great toes present the characteristic deviation of "arthritis," the plantar aponeuroses have not the usual suppleness, and seem manifestly indurated.

The case of our patient then was very clear. It was a manifestation of a rheumatismal constitution, retraction of the palmar aponeurosis with insidious beginning running back three or four years for the left hand, one year for the right.

The lesion with him had, as usual, a slow but continuous course: it involved especially the ring finger of each hand, and interfered with this man in the exercise of his vocation. What should be done? Surgical practice in the treatment of this deformity has been varied. Dupuytren, attacking the lesion vigorously, practised open division of the skin and aponeurotic bands. We know little as to the value of the results he obtained; but we know that, thanks to the defective modes of dressing then used suppurative results supervened which led to the condemnation of the procedure.

After Dupuytren other operators have practised dissection of the retracted bands, have resected them, and have even included in the extirpation, portions of altered skin. I do not wish to review all the methods which have been in turn adopted and rejected; but those operations should be positively rejected by which one resects the fibrous bands and affected skin.

* * * * *

I have myself proposed an operation not involving any loss of

substance of the affected hand. If account be taken of the readiness with which retraction recurs in certain cases, it is necessary to be able to repeat the operation as often as need be. As the lesion in its essence, comprises two principal factors, the drawing of the skin to the aponeurosis by the adhesions progressively shortening and on the other hand the shortening and thickening of the digito-palmar tracts; it is necessary that the operative procedure include a double manœuvre, 1, the liberation of the cutaneous adhesions, and 2, the section of the fibrous bands to permit the straightening of the flexed finger.

During about a fortnight before the operation I advise to apply every day upon the affected region a good layer of an iodo-iodurated salve (vaseline 30 gm., tr. iodine 2 gm., potass. iodide 10 gm. This is covered with cotton and a layer of impermeable tissue supported by a bandage, to avoid evaporation. M. Vulpian has recommended this method, and I have noticed that it noticeably softens the skin and so makes a useful preparation for the operation which is thus performed.

The hand having been well washed with soap and then covered with compresses saturated with an antiseptic solution, the patient is then anesthetized. The forearm and hand being in supination, an assistant presents to me the palm of the hand, taking care to straighten as much as possible the fingers which are viciously flexed. This manœuvre makes prominent the band or bands which it is necessary to cut. At the site of the internal edge of the palmar prominence I make a puncture with a sharp tenotome and introduce by this orifice the blade of a blunt tenotome; then turning the blade so that its edge is perpendicular to the fibrous band, I cut it transversely through its entire thickness; fine crackling sounds are heard, and the assistant who is holding the fingers, feeling the resistance overcome, brings the fingers little by little to their true position. It often happens that one cannot by a single puncture reach the lateral bands at the base of the fingers. It is then necessary to make a second one there, and by a succession of these manœuvres overcome their resistance. If at this time the fingers can be readily separated on each side, the operation is sufficient. It is necessary to be forewarned that the cutaneo-aponeurotic tracts are very resistant and that one may have serious difficulty in dividing them.

The little orifices are then occluded with a coating of iodoform-

ized collodion. A compressive dressing with iodoformized gauze and absorbent cotton is then applied. The hand is enveloped with a thick layer of cotton and fixed with the fingers extended upon a dorsal splint, padded so as to prevent injurious pressure.

In this patient the operation was perfectly successful. There was no febrile reaction. On the sixth day the first dressing was removed. We then moulded upon the dorsal face of the forearm and hand a plaster splint, taking the exact form of the parts in a little forced extension. From this time the patient every day removed the splint, made some movements with the fingers, more and more extensive, and replaced it after each séance. December 15th, he went out; the finger perfectly straightened easily executes the movements of extension and flexion. Since the commencement of the year our patient has noticed that the retraction of the right hand has increased so that he has come to seek our assistance for that.

I think it well to specially recommend this procedure, which permits by an operation absolutely subcutaneous, precise in its execution and thoroughly benign when made under good conditions, to obtain a complete cure, or at least a decided improvement. It is important to recommend the persons operated on not to neglect, and that for a long time, the movements to supple the parts; they perfect the operative result, and permit, if not completely to avert, at least notably to diminish the chances of relapse.—*Revue Gen. de Clin. et de Therap.*

JOURNALISTIC CHANGES.—Dr. P. Brynberg Porter has retired from the editorial charge of *Gaillard's Medical Journal* and is succeeded by Drs. Geo. T. Harrison and J. H. Claiborne, Jr. The *Medical Analectic* now appears as a weekly instead of a monthly epitome of progress in all divisions of medico-chirurgical practice. The editor, Dr. R. W. Amidon, will have the active assistance of Drs. C. H. Knight, A. T. Muzzy, Geo. B. Phelps and Jno. Ridlon.

REPORTS ON PROGRESS.

MEDICINE.

Geranium Maculatum.—DR. JOHN V. SHOEMAKER calls attention to the valuable properties of this indigenous remedy in quite enthusiastic terms. The dose of the powdered root ranges from ten to forty grains, that of the tincture from one-half to two drams, that of the fluid extract from m.x to ℥iiss. He considers the fluid extract the most eligible preparation, and says that when combined with an equal quantity of syrup and diluted with a little water it is not unpalatable.

With regard to its therapeutic action, he says, there are few remedies which possess a wider range of usefulness, and which are so devoid of harmful properties. In all forms of hemorrhage, whether internal or external, it is without a superior. Hemoptysis can usually be promptly arrested by dram doses of the fluid extract given hourly until the attack subsides. Relapses may be prevented by continuing the same dose at longer intervals for three or four days. Hematemesis may be effectually controlled in the same manner. In hemorrhage from the kidneys and the intestinal canal better results can be obtained from the administration of smaller doses, gtt. xx, four times daily, for an extended period. Epistaxis may be speedily checked by plugging the nostrils with cotton dipped in a solution composed of 1 part of the fluid extract of geranium and 3 parts of water; or by syringing the nasal passages with the same solution. Hemorrhage resulting from the extraction of a tooth is occasionally obstinate in character, persisting for days, defying the cautery and other methods, enfeebling the patient and alarming the family; but it can invariably be promptly arrested by filling the socket with a piece of cotton saturated with the undiluted extract of *geranium maculatum*, and applying firm pressure for a few minutes. Metrorrhagia can be most effectually abated by the internal administration of geranium with

vaginal injections of the same remedy. In a few cases it may be necessary to tampon the vagina with cotton soaked in a diluted solution of geranium or to inject the uterine canal with the same solution. The latter procedure is the most effective method of arresting uterine hemorrhage, but it must be resorted to with caution.

Geranium is also of value in purpura, scurvy, hematidrosis, and the hemorrhagic diathesis. It is a most serviceable remedy in colliquative and chronic diarrhea, infantile diarrhea, and the diarrhea of typhoid fever. It may be given with marked benefit in the later stages of cholera infantum, cholera morbus, and chronic dysentery. In the latter class of affections, rectal injections of the remedy appear to be most efficacious, as by this means the medicament is conveyed directly to the diseased portion of the mucous membrane. This is also an effective method of eradicating ascarides.

Geranium is of especial value in phthisis, restraining the diarrhea, preventing hemorrhage, moderating the fever and night sweats, lessening the cough and promoting the appetite.

In chronic bronchitis and bronchorrhea marked improvement may be obtained from the administration of

R _x	Tinct. nucis vomicæ,	-	-	-	-	-	3j.
	Tinct. sanguinariæ,	-	-	-	-	-	3j.
	Ext. geranii, fl.,	-	-	-	-	-	3jss
	Syr. simp.,	-	-	-	-	-	3jss

M. Sig. Teaspoonful in water, every 4 hours.

Chronic gastric catarrh, and the various stomach disorders due to indulgence in alcoholic liquors, can be most speedily remedied by restricted diet, reformation of habits, and the administration of 3ss of geranium 4 times a day.

Cases of anemia and chlorosis in which iron, arsenic, strychnine, phosphoric acid and quinine have not been of any benefit, frequently improve at once upon dram doses of geranium before meals. Amenorrhea and other disorders of menstruation dependent upon poverty of blood, often disappear spontaneously during a course of geranium.

Aphonia due to nervousness, mild cases of hysteria, and alcoholic trembling, are all benefited by full doses of geranium frequently repeated. I believe that it will also be found of service in the treatment of chorea.

Diluted with three parts of water it forms an elegant and effective

gargle in relaxation of the uvula and fauces, chronic pharyngeal catarrh. Applied in the same strength with a post-nasal syringe or douche it is without a superior in naso-pharyngeal catarrh. When combined with an equal quantity of water it forms an excellent mouth wash in aphthæ, scurvy, mercurial stomatitis, and idiopathic softening of the gums. In leucorrhæa, prostatorrhæa and chronic gonorrhæa, it may be given internally, and also used as an injection in the proportion of 1 part of the fluid extract to 10 parts of water. The injections should not be used more than once every second or third day. Purulent cervicitis, fissures of the cervix, and catarrh of the body of the uterus and relaxation of the vaginal walls can be cured by the application of the fluid extract of geranium, either through the medium of an injection or by the ordinary cotton tampon and application.

The pain and irritation attendant upon fissure of the anus can be removed at once by touching the fissure with the undiluted extract, and a permanent cure effected by continuing the applications two or three times daily for a few days. Prolapsus ani will usually yield rapidly and not recur if the pure fluid extract be brushed daily over the protruding mucous membrane, and a twenty-five per cent solution be injected into the rectum every second day. Ulceration of the rectum and anus may be rapidly arrested by the same means. The repeated application of the fluid extract will relieve the irritation and lessen the size of hemorrhoidal tumors, and not unfrequently occasion them to shrivel up and disappear. A ten per cent solution of geranium is a useful application in chronic conjunctivitis, granular lids, and corneal ulceration. The undiluted extract is without a superior in the treatment of fissured nipples. It relieves the pain at once, and forms a protective covering over the painful cracks, beneath which the healing process continues undisturbed. Unlike lead and the commonly displayed agents, it is harmless to the infant, and need not be washed off before nursing.

Geranium is an excellent remedy in various forms of disease of the skin characterized by excessive secretion. In hyperidrosis and bromidrosis, no more effective plan of treatment can be suggested than bathing the affected parts three or four times a day with a thirty per cent solution of the fluid extract. The flow of perspiration is lessened, the fetor removed. Vesicular and purulent eczema,

impetigo and pemphigus are benefited by the following lotion:

R	Extract belladonnæ fl.,	-	-	-	-	-	3j.
	Extract geranii fl.,	-	-	-	-	-	3j.
	Aquæ,	-	-	-	-	-	3ij.

M. Sig. Apply night and morning.

The same application will be found both prophylactic and curative in intertrigo, and eczema and herpes of the genital regions, in persons having a peculiarly delicate skin. It is also efficacious in preventing the development and hastening repair of bedsores, and promoting the healing of old indolent ulcers. Geranium is the best styptic in the materia medica, but it must not be expected to control the flow of blood from an incised artery. It will check venous or capillary oozing, restrain the bleeding of lacerated wounds, and arrest the hemorrhage following small incised wounds, or various minor operations, more effectually than Monsel's solution, alum, or any of the agents ordinarily employed. It must, however, be applied in the proper manner. To let a few drops fall on the bleeding point will not be sufficient. A small piece of cotton should be soaked in the pure fluid extract and held firmly against the wounded or bleeding surface for a few minutes. A piece of sticking plaster or an ordinary bandage may then be applied. When this method is adopted, stitches need not be inserted unless the wound is deep and the edges gaping. Hemorrhage does not recur, and the healing process begins at once and continues without interruption.

Sloughing and unhealthy sores rapidly assume a healthy appearance when continually bathed with geranium. Vaginal and intra-uterine injections are rarely necessary after delivery, but when the fetor of the lochia or other symptoms demand their employment a decoction of geranium or ten per cent solution of the fluid extract will be as efficacious as solutions of carbolic acid or mercuric bichloride, and far more safe and agreeable to the patient.

Pruritus ani and vulvæ are due more frequently than is supposed to minute fissures of the skin of those regions, or to a relaxed and edematous condition of the mucous membrane, and consequently can often be promptly relieved by the application of a strong solution of geranium.

Finally, the fluid extract of geranium, owing to the large percentage of tannic acid which it contains, is a convenient and effective antidote in cases of poisoning by iodine, mercury, silver, copper, antimony, digitalis, conium, gelsemium, tobacco, physostigma, belladonna and aconite.—*Jour. of Am. Med. Assoc.* Oct. 20, '87.

Superalimentation in Treating Phthisis.—DR. LANGOWAI reports good results in the treatment of pulmonary phthisis by superalimentation according to the plan of M. Debove, described by him under the name "lavage and gavage," first washing out the stomach and then introducing nourishment in considerable quantity through a tube. Langowai selected in the Moscow clinic five cases of phthisis in which the presence of the disease in pronounced form was fully demonstrated. Cases in which the parenchyma of the lung was not badly diseased sometimes recovered perfectly, while the worst cases were maintained for a long time. He made use of milk and meat powders, the latter being prepared as follows: the best of meat was carefully freed from tendon and fat and reduced to fine hash in a chopping machine: it was then carefully dried in an oven at a temperature not exceeding 50° C. (120° F.). After drying, the meat was powdered in a mortar and put through a fine, non metallic sieve: the product was a fine powder free from tendon and having a faint odor of flesh. When the temperature of the oven exceeded 50° C. the meat was burned, and emitted an unpleasant odor. The meat powder was closely packed in glass, and kept in a cool dry place. Thus the only change in the meat was the removal of its water, which amounted to three-fourths its body weight. He found that horse meat is as well digested and gives as good results as beef, and in Russia was less expensive. The powder is given in sweetened water with wine or peppermint water. It may also be given in milk, soup, or spread upon bread and butter. Dr. L. gave his patients sufficient of this powder to equal three pounds daily of fresh meat.—*Therap. Gaz.* Sept. 1887.

Action of Strophanthus.—PROF. DRASCHE after using strophanthus for three months in the Allgemeine Krankenhaus at Vienna, states that after the administration twice daily of twenty drops of an alcoholic tincture with an equal quantity of laurel water, he had observed a constant decrease in the frequency of pulsations, commencing sometimes within a few minutes, sometimes not for a half hour but continuing for several hours.

In typhoid fever, pneumonia, acute phthisis, etc., he always found retardation of the pulse, with slight though transient lowering of temperature. No cumulative effect was observed. In a case of Basedow's disease with tumultuous heart action, twenty-drop doses twice daily caused retardation of the pulse with improvement in

other symptoms as well. In thirty cases of heart failure with serious disturbance of compensation, like good results followed the administration of strophanthus. The palpitation and feeling of anxiety very quickly disappeared, the accelerated action of the heart decreased more rapidly than after the use of digitalis or adonis.—*Brit. Med. Jour.*

Analysis of a Cancer Cure.—Some time ago a specimen of a powder reputed to be a cancer cure, was placed in the hands of F. H. Moerk, Ph. G., for analysis. The result showed the presence of arsenious acid to the amount of over sixty per cent. The editor of the *Am. Jour. of Pharmacy*, Nov. 1887, says that Mr. Moerk's analysis renders it probable that the powder is composed of two parts of arsenious acid and one part of charcoal. He gives also a letter from Dr. H. Pursell, of Bristol, Pa., who gives some interesting particulars with reference to this powder. He says it has undoubtedly cured many cases of epithelioma and other cancerous affections, and has gained a great reputation in northern New Jersey and eastern Pennsylvania. Considerable sums of money have been offered for the secret of its composition which have uniformly been refused. He refers to several cases of which he has personal knowledge, which have been cured by this powder, among them being a case on which the late Dr. Gross operated twice for removal of an epithelioma. The surface did not heal after the last operation, but the sore was enlarging and getting worse. After treatment with this powder for a month followed by emollient applications, the cure was complete, and he remained well at time of writing, fully five years after treatment.

He describes the mode of using the powder as follows: "lightly cover the surface with the powder; apply over it, to protect the powder and keep it in place, a piece of black silk somewhat larger than the ulcer and made adhesive by egg albumen. Considerable pain is, of course, produced; but the first application, and all subsequent ones, is allowed to remain until the pain leaves, which will be in five or six days. A new one is then applied in the same way and repeated from time to time until an eschar is detached without force. A poultice of elm bark is applied, and the ulcer allowed to heal." He adds that the person using this powder is known to collect sheep-sorrel on different occasions and suggests that the charcoal found in the powder may be prepared from this plant.

Milk in Treatment of Diabetes Mellitus.—PROF. JAMES TYSON disagrees with Prof. Flint as to the harmfulness of milk in cases of diabetes. He agrees with him as to the importance of dietetic as compared with medicinal treatment, but says that in his experience the use of a strict skim-milk diet has been most advantageous and satisfactory. He has not found unskimmed milk to have the same value.—*Med. News.* Nov. 5, 1887.

Bronchial Sedative.—DR. B. W. PALMER recommends the following formula as a general cough mixture adapted to meet the four principal indications for treatment in the irritative cough of commencing bronchitis or common cold, viz., to restore the dry mucous membrane in the first stage of the inflammation to a condition of normal secretion, to allay the inflammation and irritation by sedatives and demulcents, to overcome the interference with respiration by stimulating the respiratory centres, and to promote expectoration and resolution, when the products of inflammation accumulate and excite the spasms of cough.

R	Ammonium chloride,	- - - - -	30 grains.
	Fluid tolu, soluble,	- - - - -	8 minims.
	Fluid opium, camphorated,	- - - - -	4 „
	Elixir licorice, aromatic,	- - - - -	q.s. ad 1 fluid ounce.

Under the name "bronchial sedative" this combination, slightly modified to secure greater pharmacal elegance, has been presented to the profession by Parke, Davis & Co.—*Gaillard's Med. Jour.* Nov. 1887.

Ichthyol in Rheumatism.—DOUBELIS states that ichthyol and its sulphate are obtained from a mineral oil rich in sulphur, obtained from resinous fossils which contain debris of fossil fishes.

According to the analyses of Prof. Bauman (Fribourg) and Dr. Schotten (Berlin) the oil presents the following composition: carbon, 77.25, hydrogen, 10.52; sulphur, 10.72; nitrogen, 1.10.

Both have demonstrated the harmlessness of ichthyol salts administered internally: in the dose of 18 to 24 grammes a day in animals, they produced only diarrhea, and the animals recovered in 24 to 48 hours.

For external use the ammonium salt is preferable on account of its ready solubility in water.

For internal use it is preferable to administer ichthyol in the form of pills or capsules, on account of its disagreeable taste. The

pills are one decigramme in weight, of which six to twelve should be prescribed in twenty-four hours, or better three to six capsules containing twenty-five centigrammes each.

Experiments were made in the Military Hospital at Moscow. Ichthyol was given in eight cases of acute articular rheumatism, and two chronic cases. In all the cases the articular pains were relieved while the swelling persisted. These observations prove that ichthyol possesses only calming proportion in rheumatism.—*Revue De Méd.—L' Union Méd.* Nov. 5, 1887.

Cantharides in the Treatment of Mad Wolf Bites.—KARL-CHEWSKY has observed three cases of bites by a mad wolf, the wounds were on the face, the nose and the arms.

The author prescribed to the three patients cantharides: first, upon the wounds a plaster of cantharides internally in the dose of one gramme (fifteen grains) in twenty-four hours.

The internal treatment was continued for seven days, until the appearance of burning in the urethra during micturition.

The three patients are well seven months after the accident.—*Med. Russe; L. Union Méd.* Nov. 5, 1887.

Cardiac Relation of Chorea.—The heart symptoms of chorea demand special consideration as among the most important and peculiar features of the disease. Chorea is rarely a fatal disease in children, and hundreds of cases may be treated without a death. By far the most serious fact in the clinical history of the disease is the occurrence of endocarditis; but here the danger is remote, not immediate, and lies in the changes which an acute valvulitis may initiate. A satisfactory study of the cardiac relations of chorea must embrace the condition during the attack, and the subsequent heart history after a period of years. The first question has engaged the attention of many workers, and in a recent paper Dr. William Osler has worked out the second on a scale not hitherto attempted. He has carefully re-examined 110 of the choreic cases treated at the Infirmary for Nervous Diseases, between 1876 and March, 1885, the examination in every case having been more than two years subsequent to the attack of chorea. In 43 cases the heart was normal, in 54 there were signs of organic disease, and in 13 there was functional disturbance.

A study of these cases, Dr. Osler thinks, justifies the following conclusions:

1. That in a considerable proportion of cases of chorea—much larger than has hitherto been supposed—the complicating endocarditis lays the foundation of organic heart disease.

2. In a majority of the cases the cardiac affection is not dependent on rheumatism, and cannot be regarded as in any way associated with it; unless, indeed we hold 'with Bouillaud, that in the disease "chez les jeunes sujets, le cœur se comporte comme une articulation."

3. As the presence of an apex systolic murmur in chorea is usually an indication of the existence of mitral valvulitis, as much care should be exercised in this condition as in the acute endocarditis of rheumatism. Rest, avoidance of excitement, and care in convalescence, may do much to limit a valvulitis, and obviate, possibly, the liability to those chronic nutritional changes in the valves wherein lies, after all, the main danger.—*Amer. Jour. of the Med. Sci.* Oct. 1887.

Treatment of Exophthalmic Goitre.—PPOF. GERMAIN SEE advises the use of hydrotherapy and the following potion:

R	Tr. veratri viridis,	-	-	-	5 grammes.
	Potass. iodidi,	-	-	-	25 "
	Syrup gum. acac.,	-	-	-	500 "

M. Sig. Take a teaspoonful of this syrup three times a day. After eight days double the dose.—*Les. Nouveaux Remèdes* Sept. 24.

The Dyspnea of Asthma, and the Influence of Nitrites upon it.—DR. THOMAS R. FRASER, records a clinical study of the cause of asthma, and the influence of nitrites upon it. He establishes the view that the dyspnea of asthma is caused by spasm of the bronchial muscles, and points out the value of the nitrites in its relief, and that the best therapeutic effects are not obtained by the inhalation of nitrites, but by their administration through the stomach. The facts seem to justify the assertion that their administration in this manner in asthmatic dyspnea or orthopnea is entitled to rank as one of the most valuable applications of pharmacology to the treatment of disease, an application at least as valuable as that in the painful angina of aortic disease, to which nitrites are at present almost restricted.—*Amer. Jour. of the Med. Sci.*, Oct. 1887.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, October 20, 1887, DR. W. COLES, President, in the Chair.

Dr. Hulbert read a paper (Vid. p. 1.) on

BLOOD-CLOT IN THE PUERPERAL STATE.

Dr. Boisliniere.—The doctor's paper is very ably written and the subject is treated with a great deal of care, which is wanting in many of the books on obstetrics, but I confess that I do not see the great danger arising from the retention of clots; perhaps this is because I have been fully impressed with the necessity of having them expelled from the uterus without loss of time. Of course, I have had recourse to the manipulations which he speaks of. It is not really Credé's method, but the Dublin method. It is a method of using uterine massage, as it were, so that at the time the child is expelled there is excited a tonicity of the uterus which would not be produced by unassisted nature. It is a sort of a massage, following the child into the world, a gentle pressure which is kept up until the placenta is expelled, and for some time after and until permanent retraction of the uterus. This was done by Collins in the Dublin Hospital 75 or 80 years ago. I follow this method, using steady pressure or massage of the uterus until the placenta is expelled. I also make gentle tractions on the cord, and in this way, the placenta is sure to be expelled entire. I am very particular about examining the membranes after they are expelled, to see that they are entire, and that no part has been left in the cavity of the uterus. In order to secure the delivery of the placenta, I twist it and the membranes twenty times, twirling them into a rope, as it were, then I extract them slowly, and if any part of the membranes remain behind I follow the hint given by Tarnier, to tie a string around the remnant of the membranes, and leave it there, and in a few hours extract it by the string. The danger is in the

formation of a clot between the folds of the membranes. If the placenta is delivered before the uterus has contracted, I introduce two or three of my fingers and curette the uterus of all clots with the fingers. After getting rid of the clots, I examine very carefully and remove all clots that may be retained about the mouth of the womb. I take very good care to empty the womb, and after the delivery of the placenta give ergot, and not before. If it is given before the delivery of the placenta there may be a contraction of the orifice of the womb which certainly will interfere with the manipulations occasionally required in delivering the placenta. The doctor says that ergot should be given after due preparation. By that I suppose he means that if there is any danger of contraction of the cervix so that clots may be retained behind, these should be first removed, and the uterus emptied. There may be a fear of secondary hemorrhage, and then ergot comes into play. We must first see that the uterus is clear of clots and then give ergot. In this way we will not have any dangerous symptoms arising from retained clots. I have always been very careful about this matter, and this may account for the fact that I have had no accident from this cause. I have no doubt that all the surroundings, such as the doctor speaks of, as abraded surface of the uterus or cervix, may perhaps take in some septic influence and infect the clot quicker than it would do the lining membrane of the uterus, but this is produced only by specific causes, hospitalism, for instance, an epidemic of puerperal fever at the time, or else it is after puerperal septicemia has been introduced by the hand of the accoucheur. These are very rare accidents however. When we cast our glance over the whole world and think that in every minute there is one child born; that a great many children are born under the most unfavorable hygienic surroundings, in hovels wherein people are huddled together without cleanliness, delivered by ignorant midwives, and that the vast majority of these women escape all these dangers that are mentioned, it is indeed surprising. In fact, the mortality is very small in this class of cases, as we also see in the case of primitive people, as Dr. Engelmann tells us in his remarkable work on "Labor Among Primitive Peoples." Not one woman in ten thousand dies of septicemia; they don't use ergot before the birth of the child, which probably accounts for the low mortality. They, perhaps, take a glass of whiskey which is a stimulant to the whole circulation, and they are delivered safely;

so that among these primitive people and the lower classes, labor is not so dangerous a process after all, except when complicated with malformation of the pelvis or malposition of the child. I do not recall a case in my practice where death resulted from decomposing blood-clot. But in hospitals there are often very unfavorable septic or epidemic conditions. The danger of retained clots is greater from the after consequences, not exactly from septicemic fever but from phlebitis. The doctor said some of the clots were in a state of putrefaction and others had undergone a process of organization and were in an inflammatory state. It is quite possible that this inflammatory condition may be communicated to the uterine sinuses, phlebitis may be the consequence, and may result in the sudden death of the patient by the detachment of clots in the uterine veins, which being carried to the right side of the heart causes this sudden death by embolism. I remember seeing such a case. In that case a characteristic systolic murmur was very well marked. This peculiar murmur has been called the churning sound. It was only by persevering efforts that this patient was finally relieved of this condition. In that case small clots had reached the right side of the heart, but being small, they did not obstruct the circulation enough to cause death, but she had a very narrow escape. In another case of cardiac embolism, I was sent for and reached the room just in time to receive in my arms a patient who died in a few seconds. In the above cases, thrombi had formed in the uterine veins or sinuses, and three weeks after labor, in one of these cases death took place by a sudden exertion of the patient, causing the loosening of venous clots and their transference to the right side of the heart. The Duchess of Nemours, five weeks after delivery, died suddenly from the same cause, while getting quickly into her carriage. An autopsy verified the cause of death which was cardiac embolism.

Dr. Engelmann.—You are speaking of clots in the veins.

Dr. Boisliniere.—Yes, sir.

Dr. Engelmann.—Dr. Hulbert spoke of clots in the uterus.

Dr. Boisliniere.—I remember another lady in whom the involution of the uterus was very slow, being retarded by the presence of retained clots, and then plegmasia alba dolens supervened.

Dr. McPheeters.—May not this which is a femoral phlebitis occur as the result of pressure during the latter months of pregnancy?

Dr. Boisliniere.—Yes; that is one of the factors, but the femoral

phlebitis may be an extension of the uterine phlebitis, originating from the irritation of a retained clot.

Dr. McPheeters.—We often see Credé's method of treating the third stage of labor mentioned in contradistinction to the Dublin method. Is there any essential difference?

Dr. Boisliniere.—No, sir; only Credé's method is a partial method. The Dublin method was in use long before Credé ever thought of his method.

Dr. McPheeters.—Long before I ever heard of Credé or his method, my practice has uniformly been to place the left hand over the uterus, immediately after the birth of the child, and by means of gentle kneading, accompanied with moderate traction on the cord with the right hand, endeavor to secure the expulsion of the placenta as speedily as practicable. Even after the secundines have been thoroughly removed, I still keep the left hand on the womb, grasping it firmly through the abdominal walls, and keeping it well under control until a good degree of contraction is secured. I then administer a full dose of ergot, in order to insure complete and permanent contraction, and thus guard against post partum hemorrhage. I regard the administration of ergot before the uterus is entirely empty as dangerous. The clots referred to by Dr. Hulbert are those which occur from subsequent relaxation and which are usually formed several days after delivery; the small clots are generally expelled with each recurring afterpain.

Dr. Hulbert.—I would make that distinction. I am not talking about the blood clots at the time of delivery.

Dr. Gehrung.—I think Dr. Hulbert in his paper struck the keynote in making the statement that all the membranes ought to be removed carefully, for in that seems to rest the principal if not the whole cause of blood clot. Works on obstetrics, as a rule, say very little about the management of the membranes after delivery. They teach us how to examine the membranes, etc., but they rarely if ever mention the fact that the membranes are very frequently adherent, if nothing else is adherent. The placenta may be completely disengaged while part of the membranes are still left attached in some part of the womb, and as the placental membranes are delivered some fragments are frequently allowed to remain; and if you examine the placenta after it is delivered, you will find that some shreds of membrane have been left in the womb which can easily be

removed by a little care and attention. I remember in cases where I have been called in consultation while occupied in resuscitating the child, and after the other medical attendant had delivered the after-birth, and supposed he had removed it entire, that I found a considerable quantity of membrane adherent, to such an extent as to oblige me to introduce my hand into the uterus and deliver it. Now if the membranes are well delivered, there is very little danger of blood clots. Of course I admit that there are cases in which the womb contracts irregularly; some portions being very thin, not much more than a line or two in thickness, and in contraction of the womb such places may be contracted pouch-like, forming a good nest for the formation of the blood clot. At the placental site of adherent placenta, and during labor there may frequently be felt a bulge almost like a child's head in which the placenta was caught and found adherent afterwards. Now in such a case, if the placenta is thin or if there are adhesions, the placenta may become enclosed by the irregular contractions of the womb, and this may favor the formation of the blood clot. Then there is another point of great interest, as the doctor states, "the timely administration of ergot." By the too early administration of the drug the womb is frequently forced to contract, and does contract irregularly before everything is ready for this process. This contraction may prevent us from an easy investigation, whether there are any fragments of membrane, blood clots, etc., left, and on the other hand, if there is any space at all left in the womb, and if the cervix for instance is more contracted than the upper part, blood will fill the space and form clots. It seems from the explanation given by Dr. Hulbert that most of these blood clots form at the placental site, and where the placenta has been adherent, or at injured or abraded parts where it is easy for blood to accumulate and become organized. According to my opinion ergot should not be given until the third stage is completed, and we have ascertained whether there is any hemorrhage or not, because ergot given at the improper time may obstruct or prevent hemorrhage, but if the womb is well contracted without giving ergot we may depend upon it that there will be no further hemorrhage. As to the softening of the clot; it is plainly shown that the softening is going on at the part exposed externally and if a free efflux is allowed at any time for the decomposing matter, the septic influence would not easily be communicated to the blood through the uterine and pelvic veins.

If the cervix is contracted where there is any decomposition going on, then only would the substance be retained. But under ordinary circumstances nature will help itself in moving this decomposing part and frequently vaginal injections may reach to such an extent as to wash away part of the decomposing clot; certainly intra-uterine injections should be made if necessary, but always first trying to empty the womb completely as Dr. Hulbert proposed in his paper, making sure that the clot or any other contents of the womb be removed, and all danger avoided. But if it should not be possible to remove the clot completely, it will be well to use intra uterine injections, which are not always free from danger, to be sure, but I believe these injections can be made by the instrument which I have devised and described in the *Am. Jour. of Obstetrics*, and by means of which the fluid contents are drawn out by suction, which suction must be sufficient to first raise a column of fluid to the womb and consequently will first remove all impurities which may be in a partly fluid state in the womb before the column of fluid reaches the parts to be washed, when the partly cleansed surface will be bathed and purified, then the fluid in its escape will wash away the balance. We know that a directly injected stream is not safe, in so far that it may force the decayed substance into the sinuses; it may possibly loosen the clots already in the sinuses and carry them up into the veins and thus give rise to phlegmasia alba dolens, heart clot or embolism. This aspirating instrument on the contrary absolutely obviates all fluids being forced into the sinuses, while by suction it removes from the uterus all fluid and soluble contents which are lying there ready for mischief.

Dr. Boislignere.—Do you use any antiseptic in your injection?

Dr. Gehrung.—Yes, I use solutions of hydrarg. bichloride, carbolic acid, etc.

Dr. Frank Glasgow.—There is one subject that has not been touched upon tonight, and was not referred to in discussing septic poisoning, which I think is very important; it has been omitted and it is generally omitted in speaking of septic poisoning from retained blood clot; that is the fact that the septic germs in order to get to these blood clots in the uterus must pass through the vagina. I wish to call attention to the path that the septic matter takes on its way to the uterus. It is not primarily the clot in the uterus that caused the poisoning, but the clot in the vagina; there must be some material there which generates the septic matter and

conveys it from the outer world to the uterus, and if the vagina is clean, if there is no decomposing material in the vagina and none conveyed to the uterus by the hand or instruments of the accoucheur, then there can be none in the uterus. We know that clots may be retained an indefinite length of time, without undergoing decomposition, and even become organized. So I think we ought to attach more importance to the collection of blood that takes place in the vagina. In a great many cases after the placenta has been delivered and the uterus has contracted, upon examination we will find that a clot has been formed in the vagina, and the very position the woman assumes in bed favors the formation of this clot. It would be well in many cases to have the woman lie on her side in order to drain the vagina. I think this clot plays a very important part in septic infection; hence I think that it is sometimes more important to wash out the vagina even than the uterus.

Dr. Engelmann.—I have nothing to add. I agree in the main with Drs. Boisliniere and Gehring, since my experience has been very much the same. It has been many years since I have had the advantage of hospital practice, and in my private practice I have not had occasion to meet such cases, and this is evidently the experience of the gentlemen who have spoken, as it has been mine. Hot water injections and kneading of the uterus during and after expulsion of the placenta, with proper care, and in incomplete or retarded involution, hot, antiseptic injections will greatly reduce, if not entirely prevent the formation of such clots. It has pleased me greatly to see the growing tendency to greater precaution in the use of ergot. I am delighted to see the change that has taken place in the profession with regard to the administration of ergot. When I first brought the matter before this society, the feeling with regard to my innovations was by no means very unanimous, and when I first broached it before an eastern society it was only through personal friendship and good will, in order that the paper might not fall entirely flat, that Dr. Albert Smith, of Philadelphia, spoke a kind word in favor of my views. But I know full well that even his views were a little to the contrary: certainly the universal verdict was against this maxim, which I urged, not to administer ergot until after the expulsion of the uterine contents; and I must say that I had never taken into consideration the effect of the drug upon such clots. Whilst I have carried ergot in ob-

stetric cases, presumably because it is an old custom, I never use it, for the reason that I obtain contraction of the uterus by other and safer means, pressure, friction and hot water. Dr. Hulbert very correctly cautions against the dangers of ergot; I do not think that the doctor in his paper intended to refer to other clots than those which occur in utero, and of course they should be removed as soon as possible, but the fact that these clots do sometimes exist is an additional argument against the administration of ergot even after the delivery of the placenta, to which I did at first limit it.

Dr. Hulbert.—As I stated in my paper, the object tonight was to refer to the class of cases in which blood clot occurs in the uterus post partum, after delivery has been completed and we have left our patient apparently in a perfect condition, with no etiological factors which seem to be the cause of this difficulty. My experience has been in nearly all these cases, and I have the records of twenty five, occurring the last two and a half years while I had charge of the hospital, (of the cases before that I know nothing,) but in nearly all these cases, the method of practice carried out at the hospital was to make as clean a delivery as possible, being sure everything was out of the uterine cavity, leaving our patient in the best possible condition. But in spite of all that could be done in these cases, blood clot would occur. It is the testimony of my assistants that every precaution was taken to prevent it, and I know they were honest and conscientious in the discharge of their duties. The clot usually occurred from six to twenty-four hours after delivery. I can not account for it unless it was the result of the influences that have been mentioned in my paper, the result being manifest in local conditions favoring the formation of the clot.

These local conditions are of import, and it is in my opinion necessary to bear them constantly in mind for many reasons; one important fact being the want of premonitory symptoms, giving us any indication that a blood clot is liable to form.

The fact that long tedious labors do not appear as much of a factor, or are not a very positive factor, seems to me to remove inertia pure and simple, from the list of causes. That inertia can be a cause is no doubt true, but I prefer to look upon inertia as a local expression of some other more important factor.

The opinion might be advanced that there has been some fault in the methods adopted at time of delivery; that the conditions

may have been established at time of delivery and not recognized. This I cannot admit, for my method has been as described to the gentlemen present, and the one especial fact has always been forcibly brought to the attention of my assistants; and that is never to leave the patient until a perfectly clean delivery has been accomplished, and to all appearances the contractions of the uterus have become fully established.

In regard to the question of blood clot in the uterus being a factor in cardiac embolism, I can readily see a reason, and that is, the constant efforts made by the uterus to expel the offending clots. These can very readily be loosened and send into the systemic circulation the necessary embolus. I do not like to see *after-pains*. I do not think it is a natural or physiological function of the post partum uterus to produce pains. To my mind it is an indication of something abnormal, and when persistent and distressing they demand attention.

It is not natural that physiologically any function should result in pain, and the fact that *after-pains* are so often met with gives the negative answer to the statement that, in these latter days, parturition is a physiological process.

Those of us who stand on the platform of septic infection as cause for all puerperal complications appreciate to the fullest extent the importance of blood clot in phlegmasia alba dolens, etc, and will advocate radical measures in dealing with causes, until we are in a position to *absolutely* prevent septic infection. The influence of vaginal clot is great and those of us who have seen and studied post mortem the path of septic infection need nothing stronger than our own observation to convince us that the danger is from without. My purpose in the paper tonight was not to consider this question but to indicate the danger in this direction from blood clots in the uterus.

Dr. Coles.—Do you mean that the clot is formed in from three to seven days, or that it was discovered in that time?

Dr. Hulbert.—The clots were formed in from six to twenty-four hours, but expulsion of some has occurred in from three to seven days.

In regard to the use of ergot, I think that the conditions under which it should be administered are simply these: that just as soon as we have succeeded in case of delivery in getting our patient in the condition which nature has indicated to us in the completion of

delivery, just so soon ergot should be given. I mean in normal cases. Complications may arise which demand different treatment, but we can not make a law to govern all, particularly abnormal cases.

Dr. McPheeters.—I would like to inquire of the members present what is the longest umbilical cord they ever met with.

Dr. Boisliniere.—I have seen an umbilical cord at least five or or six feet long. Naegele reports a cord three yards long.

Dr. McPheeters.—I had a case recently in which I was struck with the length of the cord, and on measuring it found it to be 43 inches long.

Dr. Hulbert.—What was the consistence of the cord, was it flabby or of a normal consistence?

Dr. McPheeters.—There was nothing marked about it except its length.

Dr. Coles.—The cord is frequently eight feet; the authorities say the cord may vary from one foot to eight feet. I delivered a child once that had the cord wrapped three times around its neck and once around the thigh. This cord was between three and four feet long and very slender.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated meeting October 11, 1887, Dr. Briggs in the Chair.

Dr. Dalton read a paper [Vid. Nov. COURIER p. 400] on

GUNSHOT WOUND OF THE ABDOMEN

Dr. Prewitt said that the great majority of gun-shot wounds of the liver prove fatal; the prognosis is always bad. He saw a case something more than a year ago of a somewhat similar injury, the bullet entering nearly at the same point. The man had been in the city hospital for a while with abscess in the lumbar region. When he came to Dr. Prewitt the liver was very greatly enlarged, and there was fluctuation posteriorly. Dr. Prewitt opened this freely, and was anxious to keep track of the man, but he disappeared and afterward died. An organ as large and important as the liver can hardly be wounded in that way without proving fatal.

The bullet in this case doubtless traversed the entire thickness

of the liver and found an entry and focus of suppuration in that region and fortunately was very freely opened; and the result proved the correctness of the treatment.

He did not see what could have been accomplished by a laparotomy in such a case, unless there had been evidence of bleeding internally or something of that kind which would have required it. He would not approve of laparotomies in gun-shot wounds of the abdomen generally. He thinks that the only course to pursue where there is reason to believe that the intestine or other organs that can be explored are injured. But in this case the bullet was in the liver. Probably there was but little hemorrhage in the abdominal cavity, and no good could have been done by performing laparotomy, but the early opening of the abscess and evacuation of the pus was certainly the proper course, and it was a very fortunate thing that it was resorted to at so early a period.

Dr. Mudd said the case was one of exceeding interest. The bullet entered very close to the left of the ensiform cartilage, and necessarily penetrated the anterior surface of the liver at once, and passed obliquely across toward the right. One of the points of extreme interest was that both the thoracic and the abdominal cavities were injured by the bullet. The evidence of injury to the thoracic cavity was not developed until some days after the injury. The abdominal and hepatic tenderness developed at once. The fulness in the lumbar region was observed before the disturbance in the thoracic cavity. The effusion into the thoracic cavity was quite rapid after it once became evident, and, as *Dr. Dalton* had stated, it was quite large; and the disturbance of the respiratory movement from the presence of liquid in the thoracic cavity was very marked. He thought that the bullet did not penetrate the thoracic cavity, but passed to and lodged in the diaphragm, or passed partially through it and dropped into the abdominal cavity below, on the posterior and outer surface of the liver, so it was behind the peritoneal membrane at the point where it was adherent to the diaphragm. Not only were the two cavities injured, but the colon, either by direct injury or by ulceration, was opened also, and there was for a time a fecal fistula through the opening in the loin. The communication between the two cavities was established before the opening was made. The rapid effusion into the thoracic cavity was due to pleuritis, excited by the escape of fecal matter after the giving way of some fibres of the diaphragm that were

not destroyed by the bullet in its impact. In this case there was certainly no indication for a laparotomy. The bullet had passed at once into the liver, probably through it and outside the peritoneal cavity. It was far enough to the left, but not low enough to have injured the stomach without having passed through the liver. There was no distinct evidence that the stomach was injured. There has been a strong effort to make the profession believe that gunshot injuries of the abdomen should be subjected to exploratory laparotomy. It seemed to him it would be better to say, in the light of our present knowledge and experience, that laparotomies are demanded where there are special indications for it, not as a rule. Generally those indications are pretty clearly marked.

What are the conditions that demand such exploration? First, a free hemorrhage. Second, if we have the bullet entering in such a way as to show that some one of the hollow viscera of the abdominal cavity is injured, and the other evidences confirm our belief, then we ought to make an exploratory operation. If, after the lapse of time, we find evidence such as we had in this case, of a local effusion, of a circumscribed peritonitis—of an effusion that was the result of the blood which had been drawn into the cavity, which had, perhaps, become circumscribed by the deposit of lymph about it; if we have a purulent cavity as a result of the effusion of some of the contents of the viscera or the breaking down of blood and laceration of tissue, then we should explore. Or if we have a rapidly developed septicemia which shows us that we have a diffuse peritonitis, then we may perform laparotomy. There are other conditions that we may look upon as indications for the operation, but there can hardly be a doubt in the mind of any intelligent surgeon that an exploratory laparotomy for a bullet wound is a much more serious matter than most of the operations that we make—for ovariectomy—for removal of the uterus or uterine appendages; and it is very much more serious because of several facts: First, the patient is not as a rule in good condition for it. He has no preliminary treatment; he is taken perhaps with a full stomach, and the bowels are very apt to be distended by beer and whiskey. Then again in exploring such a cavity as this for a bullet wound, it is necessary to explore every portion of the cavity; you must enter the cavity freely and wash it out throughout the length of the intestine in order to be satisfied that you have thoroughly cleaned the cavity, and this is apt to add to the danger of the operation.

With increased experience we may be able to limit very materially the extent of the exploratory operation, to explore the part that seems most likely to be injured and rest with that rather than explore the whole length and breadth of the abdominal cavity. In this way we shall diminish in some degree the danger. It is a fact generally conceded that such an injury to the bowel as would be inflicted by a gunshot wound, and the shock accompanying it, produces for a time an arrest of peristaltic motion. This would favor the limited exploration of the cavity.

This case occurred at about the time that there were some laparotomies at the City Hospital for injuries of abdominal viscera, where the exploratory operation demanded a full and free exploration of the cavity and the results were generally bad. In a number of bad cases there the explorations were limited to the parts that were injured, which were washed out, cleaned up and put back without much further exploration. In some cases the intestines were injured and explored only at the site of the injury or at the site which seemed to be injured, and the result was good. This subject has almost monopolized the surgical literature of the past year, and there are still many points left unsolved, and that can be solved only by added experience and not by added writing and theories.

Dr. Briggs thought it a very striking thing to have so very successful a result where the secondary condition was so serious. In a case that he saw five years ago a young woman had shot herself in the epigastric region with a small pistol, and from the symptoms it was supposed that the stomach was wounded. She lived three or four weeks without jaundice, without hemorrhage, without marked peritonitis; and then died very much as a pregnant woman does with uncontrollable vomiting. Upon making a post-mortem examination it was found that the small bullet had gone through the edge of the liver, and this wound had healed very kindly; then it went through the diaphragm, which also healed very kindly; and the bullet was then apparently lost in the structures about the lumbar vertebræ, and could not be traced further. It seemed to have been sympathetic vomiting which caused her death.

The diaphragm was laid open very carefully, there was no contraction at all; there was a cicatrix the size of a small pea. The wound had healed perfectly kindly. She was a woman of irregular life and very possibly the disorganization of her nervous system had something to do with the fatal issue of the case.

It was probably the wounded duodenum which first started the vomiting, and the disorganized state of the nervous system caused it to continue.

Dr. Prewitt doubted the expediency of making a limited exploratory operation. Where a bullet has entered the abdominal cavity, it almost certainly wounds the small intestine and may have penetrated a number of coils. He did not see how it is possible to determine by anything but a free exploration how much injury has been done. Wounds of the small intestine are always exceedingly fatal. Very few instances are on record where it has been established that the small intestine was wounded and the patient recovered. The case just reported was one of very few where the patient has even temporarily recovered, and this wound occurred in the duodenum which might have been empty at the time. Wounds of the small intestine usually find a certain amount of fluid, and, if the bullet be not a very small one, are certain to be followed by extravasation of the liquid contents, which of course spread out over the abdominal cavity and excite a general peritonitis. Wounds of the large intestine have recovered much more frequently; and where the wound was of such a character as to indicate that it had probably wounded only the large intestine, then a limited exploration would answer the purpose. These cases can sometimes be left to nature, but where the ball penetrates the abdominal cavity in such a way as to make it almost certain that the small intestine has been wounded, it seems that nothing short of a very thorough exploration will suffice, because only in that way can we be sure that we have reached all the injured parts. In cases of knife wounds, it has happened that a knife has passed entirely through the abdominal cavity without injuring a coil of intestine. *Dr. Pope* used to relate a case, where a long, narrow, flat knife had passed through the abdominal cavity, and the post-mortem showed no wound of the intestine at all, but that would be much more likely to be the case in knife wounds than in bullet wounds. Where a knife wound had been made and there was evidence of bleeding, it might take a very extensive exploration to find the bleeding point. When an undergraduate he saw a young man who died from internal hemorrhage, appealing constantly that something be done for him. He had often thought that if his abdomen had been opened and the bleeding vessel tied, he might have had a chance to recover. But that could not have been done with

out making a pretty thorough examination of the abdominal cavity. In wounds of the central portion of the abdominal cavity where there is a strong probability of the small intestine or vessels of the mesentery being wounded, he thought it would require a pretty thorough exploration to reach the injured parts, and to be certain that all had been properly dealt with. He knew of one or two cases where a surgeon had operated and had dealt with the perforations he met with, but the cases subsequently died and he then found other perforations that he had not reached.

Dr. Leete asked why *Dr. Prewitt* thinks the small intestine would be less likely to be wounded by the thrust of a sharp knife through the abdominal cavity than by the passage of a bullet?

Dr. Prewitt thought the knife might glide between the folds if it was not very sharp at the point, and still be sharp enough to go through the abdominal walls.

Dr. Leete said that the statement surprised him very much. If anything was made plain at the time when we were having a great number of bullet wounds to deal with and some penetrating wounds from bayonets and swords, it was that the behavior of the bullet was very curious indeed. This, no doubt, depended on several things, the size and shape of the bullet, the speed at which it was projected, the angle of impact, the condition of the tissues penetrated, etc. In the history of the war there was a flood of reports of cases of piercing of the chest by bullets. A careful study of the matter showed that it was very rare to have a man shot fairly through the chest. The bullet was much more apt to pass around the chest at some depth under the skin. He thought the literature of chest wounds as found in the surgical history of the war would justify the statement that the number of cases of bullet wounds passing cleanly through the chest was comparatively small. But in other parts of the body the behavior of the bullet was just as singular.

In one case a bullet had apparently crushed the tibia almost to a powder only a few inches above the ankle, and the appearances indicated that the bullet had dropped out; there were certainly no indications to explore for it, but on starting to close the flaps, attention being directed to the bruised and pulpified condition of the tissues, on hunting for the bullet he found it buried just below the tubercle of the tibia. He had seen a wound just below the patella which seemed to be just fairly the length of the

long, conical bullets, so commonly used and which seemed only just a deep indentation of the tissues, and everything indicated that there had been a deep bruising from a plain bullet that had struck upon one side, the skin apparently, before it was touched, being scarcely broken; but investigation showed that the bullet had passed under and passed out almost beyond the condyles of the femur, splitting the bone. There were plenty of such curious observations made. Observations of chest wounds and such wounds as were just instanced indicated to him that a very slight thing would deflect the course of a bullet, so that it was very easy to believe that a bullet might have passed through the abdominal cavity without cutting the small or large intestine, or it might cut the intestine in many places. He didn't see how it was possible for anyone to determine beforehand that the bowels had been cut by the passage of a bullet. The best evidence, of course, would be the escape of either gas or fecal matter. But if a sharp knife was thrust pretty rapidly through the abdominal cavity he thought that the bowels would rarely escape. He thought that too small account has been taken by writers generally of the bruising that is done by bullets in traversing the abdominal cavity. The attention has gone chiefly to the rending of the parts, the prostration that is observed and the interference with the functions of the various organs that is seen.

Dr. Mudd still thought that there was some reason for the statement which he made with regard to partial explorations. The fact that injury of the abdominal viscera for a time suspends their function, that it interferes with the peristaltic action and leaves the parts in position as they were injured, as a rule, is very important; and if he should find a patient with a gunshot-wound about the umbilical region, a little above and to the left, and could make an exploration of coils in that region pretty thoroughly, he would hesitate to draw out all the folds in the pelvic basin in an endeavor to find a new rent. If he found a bullet wound in the pelvic basin, and could explore pretty thoroughly the coils there, he would hesitate to pull those down from about the stomach, duodenum and regions there in order to get at them. It is true that you can not tell what fold or what coil is injured, they are not placed with any degree of regularity. One of the reasons why exploratory laparotomies for gunshot-wounds of the abdomen are so often fatal is because of the extent of the handling of the parts. Enthusiastic

writers of the last few years have stated with much positiveness, that when a bullet has penetrated the abdominal cavity the uniform result is death. He himself had seen cases in which the bullet wound was closed over after gunshot-wounds without the slightest inflammatory action, glazing over the opening just as if it had become agglutinated in the first hour and remained intact. And the history in many cases of gunshot wounds shows clearly that the percentage of recoveries is much more than the present statistics indicate. Dr. Richardson, of New Orleans, who has had an opportunity to examine the statistics in the hospitals of New Orleans states that thirty-three and-a-third per cent. of those suffering from abdominal wounds penetrating, and probably penetrating viscera, recover. Dr. Mudd does not believe that we should let a patient alone without interference when there is reasonable evidence that the viscera have been wounded, but he is satisfied that patients do recover under such circumstances. Exploration should always be made with reason. The reason for the exploration may not be any positive signs, but it may be on account of the region that is penetrated, the angle of impact, the velocity of the bullet, the size of the bullet, the shape of the bullet, on account of all those conditions which Dr. Leete had mentioned, and he would explore a wound made by a large bullet, a conical bullet of slow velocity more certainly than one by a small bullet that had entered with great velocity.

Dr. Tuholske heartily agreed that the time has not yet come when we can put down in dogmatic form the indications for opening the abdomen in case of gunshot wounds where complicated by injuries of the intestines. A case came under his observation at the City Hospital some time ago that he felt he was instrumental in losing because he was too dogmatic. The case was the following: A German, some twenty odd years old, had been brought to the City Hospital suffering with some disturbance of the stomach apparently, and rather the worse for liquor. He was taken into the medical ward and after having been there 24 or perhaps 36 hours, it was noticed that there were bruises about him, and the man, getting sober, stated that he had been hurt. He was transferred to the surgical ward, and there an examination was made into the history of the case. By that time, however, his belly had gotten rather tense, and he had been vomiting a little. Some fecal matter had passed through the bowels. It was then learned that

the patient had been sitting upon the sill of a second story window, and being tight at the time, he dropped out to the ground. He was picked up, taken to the dispensary, and transferred to the hospital. The bowels were rather full and tense, with a pulse which did not range over 105 or 106, and a temperature that did not range over 101°. The patient complained very little, but commenced to vomit, and the vomiting was persistent. His abdomen got a little tender, but it was not very tense, nor did he lie with his limbs drawn up. The vomiting became aggravated gradually. Dr. Tuholske saw the patient three days after he was taken to the hospital, and, on an examination, came to the conclusion that the patient had some peritonitis, and, after learning the history of the case, that the peritonitis was due to the fall. The vomiting at that time was not fecal, but was becoming so. It had passed the green stage; it was getting on to where you have duodenal matter, and he did not pass anything more per rectum. In studying up the case he argued: There is an interference with peristalsis that looks like an obstruction of the bowel, and there can be only one of two things possible. (There had been no history of injury to the bowel.) There was either rupture of the bowel or contusion of the intestine somewhere, for now that peritonitis had set in the bowel at that part, the muscular portion as well as the other, had become absolutely inactive, and, in becoming so, was forming a sort of obstruction. By that time things began to clear up a little; the vomiting became distinctly fecal, just as if it came from away down. He said this patient having dropped that distance may have ruptured the bowel. Where do the authorities tell us it ruptures from such a cause? At the lower end of the duodenum, because the portion of the duodenum nearest the stomach is movable. It is the fixed portion which is apt to be ruptured when some such force is applied. The cases of rupture which he had seen reported from such a cause had been at the lower portion of the duodenum, toward the beginning of the jejunum. We do know that the very movable viscus inside the cavity is not going to be hurt when the patient is run over, if it is not tense and full; nor will it give way in a fall unless the bowel in the rapid motion tears near the portion where it is fixed. So, he argued, if there is a tear, it is not where tears are said to occur; it is not at the end of the duodenum or beginning of the jejunum; it cannot be there because what is coming up comes from away down in the lower bowel, and the

lower end of the ileum is not going to tear because that is very freely movable. The patient got worse and died, and a post-mortem examination was made. There had been no symptoms of extravasation of fecal matter into the cavity. When the post-mortem was made, there was found a small tear in the ileum within a foot and a half or two feet of the ileo-cecal valve, and no fecal matter had been extravasated into the peritoneal cavity; it seemed almost agglutinated. It is generally thought that ruptures of the bowel from such a cause, from falls, have always been in the lower end of the duodenum or upper portion of the jejunum, those being the fixed portions.

Dr. Mudd said that *Dr. Senn* in some reports made at the International Medical Congress, laid stress upon the fact that the omentum was readily transplanted and that one could cut off a section and wrap it around the bowel, and that it would become adherent. His experiments showed that it was glazed over, and completely closed the opening in the bowel. So well satisfied is he of this fact that he says there is no necessity for suturing the bowel, except simply bringing the surfaces in contact. If you can bring sufficiently large surfaces in contact there is no necessity for suturing, and if you keep the parts in contact long enough, they will become agglutinated and hold themselves in proper position. All this would seem to indicate that explorations may not be so absolutely necessary as is thought.

In a case not long ago he had occasion to explore a cavity in which there was a stab wound. The knife had entered the intestine at one point only, but had evidently been carried around with the point of the knife, so that there was a triangular cut, leaving quite a gap in the intestine. He could readily conceive that a knife would not so readily penetrate a great number of folds of the intestine as would a bullet, and it would very readily carry forward the fold of the intestine. The statement made by *Dr. Prewitt*, that wherever we have a bullet wound we have at once an extravasation of fecal matter, is not correct, because the opening is not necessarily large, and the serous membrane is often sufficient to close it and prevent extravasation, while the cessation of the peristaltic action which follows the infliction of an injury favors the agglutination of the parts and a favorable result.

Dr. Prewitt said in regard to this that *Dr. Gross* made a number of experiments many years ago, and showed that if the intestinal

wall was wounded, not exceeding three or four lines in length, there would be no extravasation, the mucous membrane becoming everted so as to close it; but in a larger wound and especially transverse wounds, there was certain to be extravasation. So that a great deal would depend upon the size of the bullet.

He thought Dr. Tuholske a little mistaken in limiting ruptures of the intestine to the duodenum and commencement of the jejunum. It is a fact that the small intestines are almost never ruptured when they are empty, but if fully distended they are liable to be ruptured from a blow or fall almost anywhere. Something over a year ago a young man was brought into St. John's Hospital with evidences of inflammation of the abdomen, without a history of injury to the abdomen. There was pain and tenderness in the right iliac region and evident inflammation. He insisted that a man had kicked him in the perineal region. He was drunk at the time of the accident, and Dr. Prewitt thought he didn't remember the facts, and questioned him repeatedly. He suspected that the injury had been done to the bowel by a kick, but could get but an imperfect history, and scarcely felt justified in exploring the abdomen. The man died, and at the post-mortem the jejunum was found to be ruptured three-quarters of an inch in length. He had evidently been kicked in the belly as well as in the perineal region, and the bowel had been ruptured with the result stated. Where a blow upon the abdomen is received when the intestines are full, we may have a rupture anywhere, but if the bowels are empty there is not likely to be a rupture of the bowels. Mr. Holmes states there is no case recorded in which the small intestine has been ruptured under such circumstances—only where the bowels have been full. But he does not state, as he remembered it, that this rupture never occurs except at about the junction of the jejunum and duodenum. It is true that when rupture occurs in consequence of the passage of heavy bodies over the abdomen, that is the point where the rupture occurs.

Dr. Tuholske said he did not intend to convey the idea that if a patient was run over by a wagon wheel, or if he received a blow directly upon the abdomen that the rupture would always occur at the upper end of the jejunum. He was speaking of rupture of the bowel as the result of a fall, where there is no direct application of force.

Stated meeting, November 1, 1887, DR. SPENCER in the chair.

SPINA BIFIDA.

Dr. Epstein presented a case of spina bifida in a child two and a half weeks old, fairly well nourished. The sphincter ani was patulous; there was a tumor in the lumbar region which was quite well marked. The lower extremities stood out at right angles from the body, retaining that position almost constantly and seemed to be in a semi-paralytic condition.

Dr. E. M. Nelson said he had not before seen a case of spina bifida occurring in that part of the spinal column: the cases that he had seen had been at the lower end of the spine where the cauda equina passes out. The question had occurred to him whether the other symptoms noticed in this patient were due to the irritation or to the defect of development at that particular point in the spinal column. Both lower extremities were apparently with considerable force flexed upon the trunk; the knees were perfectly rigid and could only be partially flexed by the application of considerable force, and the feet were bent upon the ankles by the same set of extensor muscles, and the muscles upon the posterior aspect were firm and rigid.

Dr. Fry thought it would be very difficult to determine in a case like this the probable site of irritation. There were certainly evidences of irritation probably from the lesion that had destroyed some of the nerve fibres or centres in the cord. In a general way the flexors throughout the whole of both extremities were more paralyzed than the extensors in the same locality, and that condition might come from pressure upon the nerve trunks, or from pressure on the cord in such a way as to affect the centres from which the nerves spring. From the fact that this condition here is quite symmetrical, he would be very apt to attribute it to some want of nutrition or disturbance in the body of the cord high enough to affect the cord at the site where the nerves of both extremities are given off.

Dr. Frank Glasgow mentioned a case presented at the Obstetrical Society, by *Dr. Hulbert*. (Reported in December *COURIER*.)

Dr. Steele read a paper (Vid. February *COURIER*) on

OBSCURE INJURIES OF THE ELBOW IN CHILDREN.

Dr. Homan asked in what way a separation of the epiphysis

from the shaft, tends to prevent elongation or development of the bone.

Dr. Steele said: Bones grow in length from the epiphysis. A bone without its epiphysis, would always remain of the same length. When the epiphyseal cartilage becomes ossified, the growth of the bone stops. It is the opinion of some surgeons, and not of others, that when a fracture occurs at the epiphysis, the parts may unite by bone. Owing to the inflammation which is set up bony cells are deposited, and union takes place by bone callus, and is converted into bone and therefore the growth stops. This is a fact observed by some surgeons, but it does not always hold true. If the separation is only partial, and not a very great amount of irritation is set up, he does not believe that the cartilage is destroyed and that bone cells take the place of the cartilage cells. But if the inflammation is severe, then he believes that callus results, and the callus is developed at once into bone; and, therefore, the growth of the bone ceases. This is observed by surgeons who have given attention to epiphyseal fractures. He had consulted Dr. E. M. Moore of Rochester, also Dr. Frank H. Hamilton, in relation to the question whether epiphyseal fractures unite by bone. Both of them were very guarded in their replies, and both indicated that they did in some cases but in others did not. He himself had seen cases where one limb was shorter than the other which could not be accounted for in any other way. A tailor in this city has one leg shorter than the other and he knew no way to account for it except that there was some injury in childhood by reason of which the bone in one leg ceased growing.

Dr. E. M. Nelson inquired whether there are any cases on record in which an injury to the epiphysis in both extremities had led to an unusual shortening of both extremities in the same way. *Dr. Steele* had just suggested with regard to one. He had noticed a man engaged in painting a house, who, when he sat down seemed to be about as large as the average sized man, but when he stood up and walked, his head only came to the shoulders of the other men with whom he was working. His lower extremities were evidently very short, and the doctor thought that possibly this was the result of an injury—probably an abnormal failure to develop the lower extremities.

Dr. Steele thought it was probably congenital or the result of rickets. In hip-joint disease we frequently have shortening. Of

course the epiphyseal cartilage is destroyed and the limb ceases to grow, and as the other limb goes on growing, one is much shorter than the other.

Dr. Nelson asked whether the same shortening or failure of development would occur in case of an injury to the shoulder joint, if the upper epiphysis was separated from the shaft of the humerus as the doctor had suggested in regard to injuries of the elbow joint. A case came under his observation some few weeks ago of a little boy about five or six years old, who, when playing on a table, fell off and hurt himself. He complained for two or three days of pain in his elbow, and his parents had him carry his arm in a sling until he gradually got to using it again as well as before. About a week or so after the same thing happened again. He again fell from the table, and this time again complained of his elbow paining him, and the following day his mother noticed that there was a prominence just beneath the clavicle and the thought suggested itself that possibly there was some trouble with the shoulder instead of the elbow, and *Dr. Nelson* was asked to see the child. On examination it was perfectly apparent that there was a subclavicular or subcoracoid dislocation of the shoulder. It was reduced with little or no difficulty. There was a distinct, characteristic snap as the head of the humerus slipped into the glenoid cavity. The arm was bound to the side for a few days to prevent the shoulder being again thrown out, and at the end of a week he was allowed him to carry it in a sling. A few days after they brought the child again. He had probably fallen, or at any rate the head of the bone had again slipped forward, not quite so distinctly, under the clavicle. There was not quite so distinct a snap when it slipped back again, as the first time. He then put a cap splint over the shoulder, and had it worn for a week or ten days. When he removed it he was not quite satisfied that he had not had a case of the kind of injury of the shoulder joint which *Dr. Steele* has spoken of in connection with the elbow joint. However, the child could move his arm freely.

Dr. Steele said if there had been great displacement of the bones and the inflammation following was great, he believed the bone would cease to grow. The doctor's diagnosis was probably correct. It was a dislocation, and had he confined the arm more, and bound the arm to the child's side for three weeks and kept him perfectly still and quiet until all the inflammation had subsided, there would probably not have been any further dislocation. The

ligaments having been stretched and the muscles loose, there was not so perceptible a snap when dislocation was reduced the second time. By keeping the part perfectly still for a few weeks the child will never suffer any injury from it. To his mind the most interesting part of his paper was that in regard to passive motion in treatment to prevent ankylosis and stiffness. We have been taught, and our text-books still teach us that the way to prevent ankylosis is, as soon as possible, to use passive motion, and to keep it up. He had seen this done when the little patients would cry with the pain it caused, and he believes that where so much pain is elicited we are doing wrong, that we are only adding to the inflammation and augmenting the force which produces ankylosis. If we keep the parts still and then after a while let the patient make slight motion, they will gradually use the limb more and more, and in this way they will recover the use of the limb.

Dr. Fry asked *Dr. Steele* if trophic disturbances from injury to the nerves are as apt to happen in injuries of the joints in children as in adults; if in his observation or for theoretical reasons he believes they do happen as often.

He referred to disturbances in the nutrition of the joint from injury to the nerves at the time of the traumatism that caused the injury to the joint. In adults, and especially in elderly people, there often seems to be a good deal of disturbance of nutrition about the joint. He had noticed it frequently in Colles' fracture; there are apt to be trophic disturbances in which all the muscles of the hand participate more or less. He believes that we do not see those disturbances so often in children.

Dr. Steele said he had not observed it. No doubt it might occur in more general disturbance of the spinal cord, as in infantile paralysis we have it, but he didn't remember any case of the kind from local influence, traumatism.

In Colles' fracture he thinks the atrophy is due to non-use rather than to nerve disturbance.

RHYTHMIC CONTRACTIONS OF THE UTERUS IN PREGNANCY.

Dr. E. M. Nelson said that in looking over the reports of the meeting of the International Congress, section of obstetrics, his attention had been attracted to a paper with reference to the value of contractions of the womb which, it was claimed, occur at intervals of from five to twenty minutes during the whole course of

pregnancy, as a means of diagnosis in pregnancy. A case had occurred recently under his observation which had some weight, perhaps, in connection with the subject.

A lady was supposed to be pregnant with her third child; she had borne two healthy children, the youngest of whom was about five years old, and had had no miscarriage. There was doubt for some time as to whether pregnancy was present or not. She was in impaired health, having only recently recovered from an attack of diphtheria, and was very much debilitated and anemic at the time when, if at all, the pregnancy commenced. There was at the time when she first came under his observation intense congestion of the uterus and other symptoms, which made it exceedingly doubtful whether she was really pregnant and miscarriage threatened, or whether there was simply a congestion and inflammation of the uterus. She was not then under his care. He merely attended her in the absence of her regular attendant, and made no examination, but that was the condition as reported to him. The general health of the patient was very poor and she was sent on a steamboat journey, and after being gone some weeks returned, considerably improved. But in a few weeks her health seemed to run down again, and she went away when the hot weather commenced, and was gone two or three months. At the time she left the question whether she was pregnant or not was still in abeyance, but soon she thought that she felt fetal movements, and during her absence, after some unusual exertion, taking a long ride one afternoon, she was taken with symptoms which were supposed to be indicative of threatened miscarriage, and she was kept in bed and given morphine and other remedies. She came home in the early fall, apparently very much improved in her general condition, and fully satisfied in her own mind that she was pregnant. She was reasonably comfortable for some weeks, but she took a walk of something less than a mile one evening, not rapidly, and it exhausted her, and she reported about a week after that, that she did not feel any indications of life, and had not for a week or ten days, and she and her husband were inclined to think the child was dead, and they were anxious to know for certain, as soon as possible, whether that were the case or not, so the doctor was called in and made an examination with a view to determining whether there was pregnancy present or not. The only symptom that was at all distinct was that of distinct uterine

contractions, recurring every few minutes in the course of the examination, probably three or four times during a half hour. The womb would become as hard and firm as if it were a solid mass, and then again relaxed considerably. There were no fetal sounds to be heard, nor any fetal outlines to be felt. The diagnosis was that there was probably pregnancy and that the fetus had died. An expectant course was advised. Two weeks after that he was called to see the lady with the report that she had been suffering pain for a couple of hours. On making an examination, he found the os dilated somewhat and labor in progress, and in the course of a few hours, she was delivered of a fetus, probably of seven months' development, and considerably macerated. The child had evidently been dead as long as she supposed it had.

Dr. Williamson thought the uterine contractions, noticed by the doctor, did not amount to much in this case.

He had never seen a uterus contract during pregnancy unless the uterus was making an effort to throw off the fetus, and he thought in the doctor's case the womb was trying to get rid of the fetus, and that was why it contracted. He did not place any reliance in the sign at all.

Dr. Gehring said these contractions of the uterus are looked upon as a valuable diagnostic sign, but he did not think they are always reliable. Perhaps the doctor could tell how frequently these contractions took place.

Dr. Nelson answered that in this particular case, during the examination, the contractions occurred probably every five or six minutes. They occurred at other times besides during the examination. The patient would call attention to the fact that the contractions took place.

Dr. Gehring.—Usually in cases at the seventh month we have other symptoms which would enable us to make the diagnosis. The outlines of the fetus can usually be made out; but in a case such as the doctor reports, it very often happens that the fetus being dead comes together in such a mass that unless the greatest care is exercised, the outlines cannot be made out, and in such cases the rhythmical contraction of the womb is a very valuable symptom in enabling us to make a diagnosis.

Dr. Nelson.—There is one other interesting feature in connection with this case. When this lady was pregnant with her second child, she was suffering from some uterine ailment; she was then

in Philadelphia, under the care of Dr. Meigs and he treated her every second or third day, for two months, and insisted up to the seventh month that she was not pregnant.

Dr. Spencer called attention to an instrument devised by a *Mr. Maloney* of Washington, D. C., for the treatment of that form of deafness which is dependent upon an inoperative condition of the conducting apparatus—the object being to effect mobility in immobile parts through passive motion. The instrument presents a vibrating disc as one of its component parts, which to his mind constituted its effectiveness—the vibrating motions produced being of a character that other hearing trumpets constructed without a stretched membrane do not afford. The “Otophone” No. 3 to which the attention of the Society was more especially called, was designed by the inventor for use in the education of the deaf-dumb in instances where the deafness was due to the consequences of catarrhal inflammation of the tympanum. It was also of value as a therapeutic agent where these conditions were not so extreme but, occurring after the acquisition of speech, still gave rise to very high degrees of deafness. The speaker expressed himself as being highly pleased with the instrument as far as his observations in the use of it had extended. Its applicability in the development of latent hearing, it appeared to him, might be extended to those conditions where the defective audition was often owing, in a measure at least, to *disuse*—the better ear having been employed to the exclusion of the worse, there grew out of this the loss of “accommodation.” The embarrassment from one sided hearing is a much greater and more aggravating evil than is experienced from unilateral vision.

It is recommended for exercise that the instrument be used from ten to fifteen minutes each day, night and morning for one week, a half hour twice a day the second week and thereafter.

There are other forms of the instrument arranged to meet the defects of audition as nearly as possible. A No. 2., to be used in conversation, fastens to the auricle, being held in place by the tragus, antitragus and concha.

Mr. Maloney had declined to place these instruments in the shops, and only permitted them to be sold on an aurist's requisition. This was much to his credit, and the speaker regarded his work in the field of physiological acoustics with the greatest interest and favor.

Stated meeting Nov. 15, 1887, DR. EVERSOLE in the chair.

Dr. Todd read a paper relating a case of

“REMOVAL OF TUMOR FROM LARYNX.” (Vid. p. 18).

Dr. Williamson asked if the patient coughed very violently.

Dr. Todd said he had no cough at all before the tumor was removed, and there was no secretion to speak of.

An interesting point in the case was to see how a part becomes accustomed to the presence of a foreign body. The sensitive larynx submitted to the operation mentioned without any spasm whatever, and the vocal cords recovered themselves rapidly after this long disuse; the man began to talk at once as soon as the larynx was free. He showed here a preparation illustrating very beautifully the growth of the papillomata. The tumor was about the size of a filbert.

One thing in this case illustrates a condition of things well worth remembering. The right vocal cord still remains rather succulent, the tumor being located principally in the left side, and there being constantly an excessive blood supply, it has now a tendency to exhibit little granulations where the vocal cords are pressed together. That is exactly where tumors of the vocal cords usually originate. For instance clergymen or public speakers may take a violent cold, the patient is required to speak constantly, and there is a constant source of irritation here. He remembered the case of a clergyman who took a cold before lent; he was a very energetic speaker, and was in the habit of almost shrieking, so the vocal cords being in a state of inflammation, the edges were being constantly pressed together and became roughened, and the more they were pressed together the rougher they became, granulations sprang up, and one of that persistent form of little fibrous tumors developed in the middle of one of the vocal cords. So it is well for the general practitioner to bear in mind this point and warn the patient against the persistent use of the voice under such circumstances.

COCAINE.

Dr. Steele asked the doctor to what part he applied the cocaine and how; whether he used the spray?

Dr. Todd answered that the spray does not do any good in the anterior part of the larynx, it is not energetic enough. He makes

a saturated solution, and applies it two or three times with a laryngeal brush.

Dr. Steele said he had made use of cocaine in removing a little tumor from the metacarpal bone of the thumb in an old lady who did not care to take an anesthetic. He scraped off the epidermis as we do in vaccinating, and applied a ten per cent solution of cocaine, and the incision gave her no pain whatever. That is just the difference between applying the cocaine to the mucous membrane and to the skin, the epidermis being removed it acts, otherwise it does not.

Dr. Eversole said that a few days ago he had a periurethral abscess in a case of gonorrhea. He used cocaine in opening it. There was a patch on the under side of the penis which appeared to be as large as the last joint of his thumb, and it was very tender. It pressed so much on the urethra that the man could make only a small stream of water. He thought once of chloroforming him, but thought he would try cocaine first. He made a saturated solution and applied the cocaine on a piece of cotton, first washing off the greasy secretion and drying the part thoroughly with cotton. He waited fifteen or twenty minutes after applying the cocaine and then before making an incision took his hypodermic syringe and injected five or six minims of cocaine solution. He probably occupied twenty minutes in getting him under the influence of the cocaine and then took the knife, and before he knew that he had made an incision had cut into the part a quarter of an inch. He got out a dram or a dram and a half of thick pus. The patient did not know that he had made an incision at all. The insertion of the hypodermic needle did not seem to hurt him at all, and he was not conscious of the incision.

PURPURA IN MALARIAL FEVER.

Dr. Hardaway said that at the polyclinic about a month ago a young man appeared who was evidently suffering from fever and gave a history of malaria, and also had a widely spread purpura. The purpuric patches were of finger-nail size, most of them. He was put upon anti-malarial treatment, and in the course of time the purpura disappeared. A few weeks after that he came back to the clinic again with the malaria, and again this hemorrhage into the skin was present. This occurred three different times. Physicians who practise in malarial regions, say that they see this quite frequently. He himself had not observed it, although in former years

he saw a good deal of malaria. There was no hematuria. No opththalmoscopic examination was made, but there was no reason to believe that there was any retinal hemorrhage.

Dr. Williamson said he had practised in the South but never noticed any cases such as reported by *Dr. Hardaway*, where the purpura attended malarial attacks, though he could very well understand that if the patient had been run down by repeated attacks of malarial fever and the blood had become impoverished, and the blood vessels relaxed, how such condition could be superinduced.

Dr. Leete said that as to purpura hemorrhagica being the result of an impoverished condition of the system, he should have to take exception. He had seen one case in which the evidences of perfect health were as marked as are commonly seen in a boy of thirteen or fourteen years of age, when suddenly he became ill with purpura hemorrhagica. He bled freely from the preputial mucous membrane and from other mucous membranes, and his body was thoroughly covered with this peculiar eruption, almost as if he had had confluent small-pox. As to the duration he did not remember, but he never was able to offer any explanation for it. There was no apparent departure from health until in the course of the night there was this appearance of bloody spots over the body.

Dr. Hardaway asked if he came of a purpuric family.

Dr. Leete could not say as to that, but had never heard that any members of the family suffered unusually from hemorrhages. He was one of a flock of ten or twelve children; the parents were German, and the boys were all such as would be called close-knit, wiry people; they were of medium height and strength active, strong children. Now the only suggestion that had occurred to him was that this might possibly have been explained by that sudden variableness of system, incident to puberty, which is frequently observed in boys; there is a sudden letting down of strength; a suddenly developed enervation, headache and a whole chapter of discomforts and complaints for a time which varies from a few weeks to a few months. Whether there was anything of that sort in this case or not he could not say.

Dr. Hardaway asked where the eruption was situated.

Dr. Leete answered that it was over the entire body, as if he had small-pox, from his face to his toes; but he bled freely from the preputial mucous membrane.

Dr. Grindon, in answer to a question by *Dr. Hardaway*, said he had only seen one case of purpura rheumatica where he was positive of the diagnosis, and that was in his clinic. The patient was an adult and in very good general health. There was at the same time pain in the knees and extending down to the ankle, but more marked at the knees. There was a little swelling, and the eruption was distinct and limited to the lower extremities and lower part of the abdomen.

Dr. Hardaway said he had seen cases both in children and in adults. The eruption had occurred about the extremities, and there was not generally any distinctive swelling of the joint, but in the neighborhood of the joint the patient complains of pain, puffiness and swelling, not in the joint itself; and in some cases there was more or less pain in the bowels. What the disease is he was at a loss to say. It has been called purpura rheumatica because of the pain in the joints, but whether there is any relationship he didn't know. We find all grades of purpuric spots, and they undergo variation of color, looking just like bruises, and there is a tendency to recurrence. The first case he ever saw, probably in 1871 or 1872, was a German boy, eighteen or nineteen years old; he was at a loss to make a diagnosis, and being at that time an attentive student of Niemeyer, he read an account of such a case and thus made a diagnosis. He thought it was the first case reported in English. He has since seen a dozen or more cases.

Dr. Eversole had seen three cases. One was at the hospital, the patient being a telegraph operator. Last winter a little girl was carried to the clinic by her father, who had rheumatism, and these spots on her limbs. She did not come back however. This summer he saw a Bohemian girl who had these spots over the extremities.

AMERICAN PUBLIC HEALTH ASSOCIATION.

The fifteenth annual meeting of this important association was held in Memphis, Tenn., Nov. 8, 9, 10, 11, 1887.

Dr. Geo. M. Sternberg presided ably over the sessions which were held in the room of the United States Court.

Ninety-four new members were elected at the first session. The treasurer's report showed a balance on hand to the amount of \$920.65.

The first paper was read by Dr. Ezra M. Hunt, Secretary State Board of Health of New Jersey, the title being "The Origin of Some Diseases." He discussed, first, the changes brought about in the processes of evolution, and the fixedness of type that may be acquired; and, second, the results of hybridization as seen in diseases.

Dr. Hunt then read a second paper entitled "The Prevention of Microphytic Diseases by Individual Prophylaxis." He referred first to the modifying influence of inoculation in small-pox, then to the preventive effect of lime juice in robbing scurvy of its terrors. Next he called attention to Jennerian vaccination, and then to that of Pasteur, then to the general subject of disinfection. Following up the history of the development of the modern views of disinfection and preventive medicine, he referred to experiments and studies on the prevention of anthrax, scarlet fever, malarial fever and other diseases.

He says there are now many who believe that the real action of some of our most successful remedies is just this: The mitigation or prevention of a microphytic disease does not necessarily mean the destruction of the organism, but its inhibition *in loco*, or the modification of its chemical action on the tissues or of its products so as to render it harmless.

Dr. Carl Horsch, of Dover, N. H., then read a paper on "The Necessity of Burial Permits and Inspection of Bodies of Deceased Persons," advocating the establishment of houses for the reception and care of dead bodies for inspection before burial, as is done in Germany.

A paper prepared by Dr. Jno. S. Billings, U. S. A., was then read, viz. "Some, Forms of Tables of Vital Statistics, with Special Reference to the Needs of the Health Officer." It was accompanied by numerous blank forms, and described an improved method of compiling statistics by means of an electrical machine.

An abstract of the report of the Committee on Disinfectants was read by Dr. Geo. H. Rohé, of which the following are the conclusions reached:

1. The temperature required to destroy the vitality of pathogenic organisms varies with the different organisms.
2. In the absence of spores the limits of variation are about 10° C. (18° F).
3. A temperature of 56° C. (132.8° F.) is fatal to the bacillus of

typhoid fever, the bacillus of glanders, the spirillum of Asiatic cholera, the erysipelas coccus, the virus of vaccinia, of rinderpest, of sheep-pox, and probably of several other infectious diseases.

4. A temperature of 62°. (143.6 °F.) is fatal to all of the pathogenic and non-pathogenic organisms tested, in the absence of spores (with the single exception of *sarcina lutea*, which in one experiment grew after exposure to this temperature).

5. A temperature of 100° C. (212 ° F.) maintained for five minutes, destroys the spores of all pathogenic organisms which have been tested.

6. It is probable that some of the bacilli which are destroyed by a temperature of 60°C. form endogenous spores which are also destroyed at this temperature.

At the evening session an address of welcome was delivered by Hon. J. W. Clapp, in behalf of the City, and by Gov. R. L. Taylor in the name of the State. President Sternberg then delivered the annual address.

He referred to the National Board of Health and its unhappy failure a few years since, and expressed the opinion that any new central health board must be organized as a bureau under the supervision of one of the existing government departments, so as to be under the protection of a cabinet officer. He suggested a bureau of public health with a bacteriological laboratory connected with it. Associated with this, he thinks, there might be an "advisory board of health" consisting of the surgeons-general of the army and navy and marine hospital service and the presidents of the state boards of health.

He described the plan of quarantine by supervision, detention and disinfection, recommended by the International Quarantine Commission of which he was a member.

He expressed a hope that the measures taken at New York with regard to the cholera infected vessels from the Mediterranean would prove to have been sufficient and that the disease had not obtained a lodgement in our country.

He doubted the practicability of putting our seaports in such a state of sanitary defence that it would be safe to open the door and defy the foe, but he did believe that cities could be preserved from epidemics by carrying out needed sanitary improvements and by the constant care of expert sanitary officials supported by an enlightened public sentiment and sufficient appropriations.

He held that the cost of all such protection and quarantine establishments should be paid by the national government or by the states in which they are located. He called attention to the importance of teaching personal hygiene and of special investigation of sanitary questions, and suggested the raising of a special fund for the purpose of encouraging such a work.

He spoke of the advances made in bacteriological researches. He expressed a hope that in all diseases in which one attack protects from subsequent attacks, protective inoculations may be practised, when once we have succeeded in isolating and cultivating outside the body the specific infectious agent. Wednesday morning a resolution was adopted appointing a committee, of which Dr. Sternberg should be chairman, to study experimentally the methods and effects of protective inoculation against infectious diseases.

Dr. Horsch, of Dover N. H., contributed a paper on "Inspection of Animals required for Food," advocating the inspection of living animals before slaughtering and examination of the internal organs afterward.

"The Meat Supply of the Nation and its Future" was a careful statistical review of the animal food resources of the country. It showed the steady decline of our flesh food production compared with our rapidly multiplying population, criticising unwise legislation and urging the efficient regulation of our food supplies.

Dr. John H. Rauch, Secretary of the State Board of Health of Illinois, discussed Cholera and Quarantine in a paper which presented the deficiencies of the quarantine service of New York City, and urged the necessity of the national government taking control of the quarantine of the whole country.

Dr. A. N. Bell spoke even more sharply than had Dr. Rauch with regard to the state of things at the New York quarantine, yet expressed the belief that the work done with reference to the passengers of the *Alesia* and *Britannia* had been successful and that no disease would follow.

At the evening session Dr. Wm. Councilman of Baltimore, M.D., read an exceedingly interesting and valuable paper on "The Malarial Germ of Laveran." He believes that this organism belongs to the protozoa, a group of unicellular organisms noted for the varied changes of form which the individual examples undergo in the course of development. He has seen ten more or less distinct forms, five of which, evidently related to one another, are always

found in intermittent fever. Others forms are found in malarial cachexia. One definite form is always found during the period of chill and at no other time.

"The Quarantine System of Louisiana" was a paper by Dr. Joseph Holt, President of the Board of Health of that state, who described the methods adopted and gave the reasons which led to the change in their system.

Thursday morning thirty-three new names were enrolled upon the list of members.

A telegram from Mr. Henry Lomb, of Rochester, offered prizes of \$500 and \$200 for best essays on "Practical Sanitary and Economic Cooking adapted for Persons of Moderate and Small Means." The offer was accepted.

Dr. La Berge, Medical Health Officer of Montreal, gave an account of the system of garbage burning as now practised in that city.

A discussion of the question whether state systems of quarantine should be replaced by a national system, was introduced with an excellent paper by Dr. Walter Wyman, of U. S. M. H. S. in which he took decided ground in the affirmative and strongly advocated the placing of the quarantine administration in the hands of the branch of the service of which he is an able and efficient member.

Others who followed him argued that even if the national government assumed the control of quarantine it was not the province of the Marine Hospital Service to administer it, as that was organized for the purpose of taking care of sick seamen. Others still held that the several states should direct the quarantine, aided by the general government when necessary.

At the evening session Prof. S. W. Williston, of New Haven, Conn., read a paper on "River Pollution,"

Friday morning, Nov. 11, resolutions were passed urging that all our seaports revise and modernize their quarantine systems.

The following officers for the year were elected:

President, Dr. Charles N. Hewitt, Red Wing, Minn., Vice Presidents, Drs. G. B. Thornton, Memphis, and Joseph Holt, New Orleans; Executive Committee, Drs. Henry B. Baker, Michigan; S. H. Durgin, Mass., and J. N. McCormack, Kentucky. The secretary, Irving A. Watson, M. D., of Concord, N. H., holds over.

The meeting of 1888 is to be held in Milwaukee, Wis.

NOTES AND ITEMS.

ACUTE ERGOTISM FROM ONE DRAM OF FLUID EXTRACT.—Dr. Laure Hulme reports the case of a patient forty-eight years old affected with uterine fibroids with consequent menorrhagia. Hot injections and other such remedies had little effect to control the hemorrhage. On the second day of one menstrual period, the flow being excessive and proving more than usually uncontrollable, at 10 A. M. he administered one small teaspoonful of Squibb's fluid extract of ergot and left her comfortable. On returning less than forty minutes later he found the patient half fainting. The face was swollen, pallid and indicated great anxiety; respirations were frequent and shallow; the extremities were swollen and the abdomen enlarged. The pulse was frequent, weak and irregular. The pupils were equally dilated and vision indistinct. There was dizziness and nausea. The flow continued and no signs of uterine contraction were evident; she had no pain.

Under the administration of whiskey and aromatic spirits of ammonia every half hour in doses respectively of ʒj. and gtt. x., until 2 P. M. she felt stronger and the pulse became normal in frequency, though very full and quick. The pupils were still widely dilated and there was much vertigo. The swelling of the face and extremities continued to increase till 7 P. M. In twenty-four hours the symptoms began to decrease and gradually subsided, the dizziness and indistinct vision being the last to disappear and lasting several days.—*Med. News*, Nov. 5, 1887.

DEATH UNDER ETHER.—Dr. D. Hayes Agnew reports a case in which he operated on a patient, æt. forty-five, for removal of two ulcerating hemorrhoids which had resisted other treatment for several months. One year previously he had divided and stitched the sphincter ani of the same patient, who took the anesthetic at that time with no unfavorable symptoms. On this last occasion the anesthetic (ether) was given from an ordinary towel folded into the form of a cone with an opening at the apex. Nothing occurred in the early stage of the inhalation to attract special attention. In about fifteen minutes, while the patient was still somewhat rigid,

he was placed across the bed and the operation was commenced. One of the tumors had been ligated and the doctor was about to seize the second, when, without any warning, respiration suddenly ceased. The operation was immediately suspended and every effort was made to restore the patient including among other measures the maintenance of artificial respiration for forty-five minutes, during twenty-five minutes of which time heart pulsations were recognized. Nevertheless no effort at spontaneous respiration occurred.

Post mortem examination showed atheromatous degeneration of the vessels constituting the circle of Willis, and rupture of a calcified artery in the floor of the fourth ventricle, the recognized centre of respiration. There was complete collapse of the lungs. This proved the utter impossibility of foreseeing or guarding against the unfortunate occurrence.—*Med. News*, Nov. 19.

PRIZE FOR ESSAYS ON MEDICO-LEGAL SUBJECTS—The Medico-Legal Society of New York announces three prizes for original essays on any subject within the domain of medical jurisprudence or Forensic Medicine:

One hundred, seventy-five, and fifty dollars, respectively.

The prizes are to be awarded by a commission, to be named by the President of the Society.

Competition will be limited to active, honorary and corresponding members of the Society at the time the award is made, but all competitors may apply for membership in the Society, which now has active members in most of the American States, Canada, and in many foreign countries.

The papers must be sent to the President of the Medico-Legal Society of New York, on or before April 1, 1888, or deposited in the Post Office where the competitor resides on or before that day.

All persons desiring to compete for these prizes will please forward their names and address to the President (Clark Bell, 57 Broadway New York) or Secretary (Albert Bach, 140 Nassua St., New York) of the Medico-Legal Society of New York.

In case the essay is written in a foreign tongue, it should be accompanied by a translation into the English language.

OHIO STATE SANITARY ASSOCIATION.—The fifth annual meeting will be held at Toledo, Feb. 9 and 10, 1888. An unusually interesting and instructive meeting is anticipated.

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ORIGINAL ARTICLES.

INSANITY IN RELATION TO MIND AND WILL.

BY REV. JAMES HOFFER, S. J., *Member of the Faculty St. Louis University.*

[*Read before the Alumni Association of the St. Louis Medical College,*
Dec. 21, 1887.]

IT gives me great pleasure, gentlemen of the Alumni Association of the St. Louis Medical College, to begin by tendering you the appreciative thanks of the St. Louis University, for the invitation extended to a member of its faculty to lecture before you on a subject of common scientific interest. "The old college" has not forgotten its fellowship in early days with the St. Louis Medical College, and it is with the kindest recollections of the olden times that the venerable Alma Mater has delegated me to bind the present with the past. It is this pardonable affection of Alma Mater for your institution, gentlemen, that has placed me in this novel position here to-night. To me, certainly, it is quite a surprise to discover that I am a missing link; while to an outsider and a stranger to my situation, my presence here before this assembly of medical experts would doubtless look like an interesting case *de lunatico inquirendo*, a startling case, indeed, the subject being a veritable Jesuit, without the existence of a doubt as to his genuineness.

The further fact that this Jesuit presumes to lecture before the medical faculty on mental disease, would only confirm the stranger in his estimate of the Jesuit's mental status. The stranger would not know that this unfortunate man was actually invited to discuss the subject of insanity, not from a medical standpoint, but on the psychological grounds of that school of philosophy of which he is an humble representative. This is the real position of this Jesuit before this distinguished audience; he stands here by courteous invitation to present the psychology of insanity in relation to mind and will, according to the tenets of the philosophy of Aristotle, as expounded and perfected by Albert the Great, St. Thomas Aquinas, Scotus, Cajetan, Suarez, and other great philosophers of the past.

Addressing myself to my subject, I would premise that of all systems of philosophy, the Aristotelian can advance the strongest claim to the value and weight of that true kind of science, whose principles and laws are the results of the closest examination and study of existing phenomena or facts. Aristotle was confessedly one of the keenest observers and most ardent students of nature that ever lived, and it is precisely on that account that he became one of the greatest, if not the greatest one, of all the philosophers of all times. Unlike some other philosophers, he disdained to fabricate a philosophical theory in his study and then sally forth to thrust it upon nature whether it would fit or not; contrariwise, he first studied nature and then framed a philosophical system that would fit perfectly upon her; in other words, he did not prescribe laws of his own to nature, but accepted the laws she dictated to him. Such was Aristotle's philosophical method, and such has ever been that of his followers; and if proof were needed, the present lecture would furnish it by way of specimen.

The field of investigation to which my subject leads, is undoubtedly a great one. The most interesting as well as the most extensive and varied range of facts that falls under the observation of man, is unquestionably that which springs from man's life-principle, his *ψυχή*, his soul. These psychical facts are of all facts the most evident and certain to man, inasmuch as he not only sees them expressed in the conduct of his fellows, but per-

ceives then actually passing within himself. Among these psychical facts those more especially challenge attention, which constitute the mainsprings of all that activity which is specifically human, I mean, the psychical facts of mind and will, and it is to these, as chiefly pertinent to my subject, that I must limit my remarks.

I.—MENTAL INSANITY.

DEFINITION.—Looking at the phenomena of mind and will in their whole range, one conclusion will at once come home to the scientific observer, and it is this: That in the mass and multitude of mankind, mind and will act in the same way, and that this constant mode of acting is, therefore, normal to the human species; and by consequence, that a departure from that constant way of acting, is abnormal to the species. The normal way of acting might be called by the observer, healthy, the abnormal, diseased; or, if words of latin origin be preferred, the former would be denominated *sane*, the latter, *insane*. In brief, “that mode of acting which is normal to the species, is sane; that which is abnormal, is insane.”

Here, then, we have already one definition of insanity, and it is one which St. Thomas gave, 2.2, p., q. 157, a 3 ad 7: “*Insania animæ accipitur per hoc, quod anima humana recedit a debita dispositione humanæ speciei. Quod quidem contingit, et secundum rationem, puta cum aliquis amittit usum rationis; et quantum ad vim appetitivam, puta cum aliquis amittit affectum humanum.*”

“By insanity of the soul, this is meant, that the human soul recedes from the due disposition of the human species. This indeed may happen, both with regard to reason, as for instance, when one loses the use of reason, and with regard to the appetitive power, for example, when one loses human affection.”

This is also the conclusion arrived at by Dr. Hughes, when he declares the ultimate symptomatic expression of insanity to be “change of mental character as compared with former self or normal ancestral type.” (*The Alienist and Neurologist*, October 1887).

The normal definition of insanity may then be formulated

briefly thus: "A state of mind or will departing from that which is normal to the species." The definition, is clear, but like every definition, it requires fuller explanation for a complete understanding of its import.

Insanity is a *state*; that word at once distinguishes and separates insanity from all other phenomena of abnormal mental or volitional activity, such as delirium, dreaming, etc.

It might be contended that transitory abnormal actions are in reality transient insanity; however that may be, it is certain that mankind in general and the professions in particular practically understand insanity to be something sufficiently permanent to be a state, and we must accordingly define the word as it is universally interpreted. Insanity then is a state, something that comes to stay.

In the next place, it is a state of mind and will which departs from a normal state. The question at once suggests itself, what is the normal state for mind and will? Evidently for mind it is to be able in all ordinary cases to distinguish between the real and the unreal, the true and false, in a word, to know things as they are in reality. To avoid confusion, you will allow me to leave the consideration of the will for separate treatment later on; for the present, it is more advantageous to limit our examination to the mind. Normal mental state is, therefore, to be able to know the real from the unreal. It follows that the departure, the abnormal state is, not to be able to do so, actually to take the unreal for the real, which is delusion. Delusion, then, *i. e.*, to take the unreal for the real, is the true character, not only of insanity, as Erskine said, but of every kind of normal mental action; it is as characteristic of delirium, of dreaming, and other transient abnormal activities, as of insanity itself, the only difference being that the delusion proper to insanity is permanent, again a state.

One question more presents itself: what is the cause of the abnormal state? The origin of all abnormal mental action must be traced back to some abnormal affection of the organism which is concerned with the mental process, and that organism is the nervous system with its great center the brain. This is as true in the case of dreaming as it is of insanity; but the great differ-

ence is that in insanity the organic derangement is again permanent, a state.

While mental insanity then belongs to the genus of mental activity which is abnormal, three specific differences differentiate it from all kindred abnormal mental phenomena :

1. That it is a permanent condition or state.
2. That its delusion is fixed, a state.
3. That its organic cause is constant, a state.

We are now in a position to formulate a fuller definition of mental insanity, as follows: "It is an abnormal mental state, produced by permanent delusion, caused ultimately by constant organic derangement."

Such would be the Aristotelian psychologist's definition, and Dr. Hughes will certainly accept it as in the main correct. How does the philosopher arrive at that definition? By examining and studying the facts,—the origin, the development, the full product of mental insanity.

GENESIS.—The origin of insanity, understanding by the term abnormal mention action as defined, is some organic lesion or disease which primarily or secondarily involves the brain.

This statement is as much in accord with the principles of Aristotelian psychology as it is with the most reliable experimental results of modern medical science. A brief summary of the Aristotelian view of the genesis of knowledge will make this clear.

Resting on the observation of the facts, the Aristotelian psychology takes knowledge at its birth in the bodily senses. For all sense knowledge it recognizes nature's requirements of perfect organism, and finds that organism in the nervous system with the brain for great center. The sense-perceptions of the five external senses are accomplished in the special organs of those senses; thence they are reported to the central station, the brain. Internal sensitive modifications are similarly perceived by means of the sensory nervous system, and similarly transmitted to the brain. In the central organism of the brain the reported sense-perceptions are presented to the sentient subject; in other words, there is a central unifying sensory power which perceives that the eye sees, the ear hears, etc. Thus the

great sensory faculty in the brain gathers together all the perceptions of sense, all sense-knowledge, for what purposes we shall presently see. Stopping right here, the Aristotelian philosopher finds upon examination of the facts, that sense-perception is not accomplished by organism alone,—but by the vital sensible power acting in and through and with organism. Organism alone is not enough: there must be the sense-power over and above, and he at once concludes that like every other power or force in nature, it is without material parts, and consequently incapable of disintegration or corruption. Corruption, decay, disease, can only take place in the organism used by that power, so that in all cases of defective or abnormal sense-perception, it is not the vital force but its organic instrument that is unhealthy. Therefore, abnormal organic condition is the cause of all abnormal sense-knowledge, and therefore, says the philosopher, also of all abnormal intellectual knowledge. It is an undeniable fact that sense-knowledge is the basis, or as a scientist would call it, the sub-stratum of mind-knowledge; it is an undeniable fact that sense-knowledge furnishes all the material that mind works upon, that it must supply all the food for thought. It follows that a normal or abnormal supply of sense-knowledge will induce a correspondingly normal or abnormal mental action. The mind itself being a power, and a much higher power than sense, cannot for still greater reason suffer disintegration, cannot itself become diseased. Abnormal mental condition is but the consequence of abnormal sensitive condition, and this is abnormal only by reason of abnormal organism.

The philosopher's view becomes still clearer by following his explanation of the genesis of thought.

All the sense-perceptions brought together in the great central sensorium of the brain, present the accumulated materials upon which mind is to work. The sensorium of the brain which thus enters into relationship with the mind, was called by the ancients *imaginatio*, from *imaginare*, to image, because it presents to the mind the sensible images of things. This is the primary function of the imagination, to present the sensible appearances or things to the mind's eye. With all external or internal corporeal facts the mind cannot enter into communication save by means of

their sensible representations in the imagination; so that the imagination is the only medium by which the mind can perceive the world of physical realities. To borrow the beautiful comparison of St. Thomas, the imagination may be likened to the smooth surface of a deep lake, so embedded in the midst of a mountain scene as to be its perfect mirror; while the mind may be compared to a man so situated, that his eyes can behold nothing but the surface of that lake, and the reflected landscape there. For it is even thus that the mind's eye is by nature fixed upon the tranquil imagination, contemplating therein all the splendors that fall through the avenues of the senses, like so many shafts of light, upon its surface, and mirror themselves in its depths. As long as the surface remains undisturbed, the images lie in perfect and distinct beauty, illumined by the warm, glowing colors of fancy; but when the tranquility of the surface is disturbed;—when the streams of sense-perceptions come like muddy floods that darken the waters;—when the passions break in storms that plough into the depths and lash the waves into fury; then the images are distorted into monstrous shapes that creep and crawl and leap and dance upon the fury-tossing waves, and hourly grow more monstrous amid the lurid lightnings and intense glooms of frenzied fancy.—Such is St. Thomas' view of imagination relative to mind; and is it not true to experience, true to nature? Surely it is easy to understand that the normal or abnormal action of mind depends inevitably on the normal or abnormal action of the imagination; it is easy to see that when imagination pictures things that are not, or differently from what they are, the mind is compelled to take the unreal for the real, and you have delusion, the proximate cause of the abnormal state called insanity.

But what is it that causes the imagination to act abnormally? The answer is again, that it is not any disintegration or disease of the vital power at work, for that is impossible; the cause is the abnormal condition of the organism. The question, then, goes further back; what are the causes of that abnormal condition of organism. They may be one or all of these four; heredity, physical violence, disease and the passions. In some cases, morbid organism is plainly the heirloom from parent to child;

in others, it is the result of some external violence; in others again, of disease; while in many others it is plainly the effect of excessive passion. In any case and in every case, however, whatever the cause may be, deranged organism deranges the imagination, and by a natural consequence, the mind; and if the derangement of organism is permanent, we have insanity.

The Genesis of Insanity, therefore, is from organic derangement, through abnormal action of the imagination, to abnormal mental action.

GROWTH.—The development or growth of insane mental action, will evidently depend on the further development of the abnormal condition of its causes, and therefore ultimately on the progress of organic disintegration. The increase of insanity depending then on the increase of organic derangement, our next step is to look for the reasons of the latter, for the aggravating causes. The causes may at times be purely organic, *e. g.*, diseases, whether inherited or acquired, but as the discussion of these belongs to the province of medicine, I prefer to leave it with you, gentlemen. There are other causes which are psychological and within my reach, and these are the imagination and the passions. Of the passions I shall speak later; at present I must call attention to the destructive power of the imagination, and this time of the imagination as more familiar to us by its English name. The primary function of imagination is, you remember, to furnish mind with materials to work upon; now we come to consider its secondary function, viz., that by the bent of its nature it seems to body forth mental thought in some sensible shape, or as we usually say it, it seeks to imagine what is thought of. When therefore abnormal mental action has once begun, it develops by sympathetic reaction a corresponding, parallel, abnormal activity in the imagination; the mind becomes, as you would say it, a constant irritant of the imagination. The irritated imagination in its turn reacts on the animal passions, thus becoming an irritant for them,—and then, reaction reverts again from those lower faculties, back to imagination, back to mind, and in the constantly increasing irritation of these most potent interacting agencies, it is easy to foresee the fate that must befall the al-

ready morbid organism in the destructive war that has begun.

What a struggle that must be, gentlemen, for one who is proud of his intelligence, and prouder of his liberty of will, and who in the full zenith of ambitious life is doomed to realize that awful beginning of a frightful end.

What a discovery that must be, when for the first time the consciousness of his dangerous condition, flashes upon him. The terror and the agony of that hour almost suffocate him; it is a horrible incubus from beneath which he starts and springs up as a man does out of a nightmare, and with a great sigh of relief he gasps, it is only a dream. But it is not a dream; it comes again, more horrible than any phantoms or walking ghosts that ever shook the stoutest hearts,—it comes again. He rises to meet it. The man who is being throttled to death does not rouse himself half so desperately to struggle for his life; the man who would be dragged out to be buried alive would not fight half so mightily against his executioners; this death-struggle is not for body alone, but for mind also; the grave yawns for both, and rising to the full height of his being, the victim musters all his powers for self-defence. The war has begun; its storm is breaking upon him in ever increasing fury; every hour he realizes more and more that he is unequal to the conflict, that before every coming assault he will be weaker, and that if the storm continue unabated much longer, the light of his mind and the liberty of his will, his sovereign glory as man, will be swept away in the midnight tempest of insanity. "Becoming a lunatic." That shriek of his soul at first unnerved him; now it stretches his nerves to the top of their bent; he will overmaster himself, will, and lifting himself up for the supreme effort of his life, his most sovereign will commands the storming elements of his being, "peace, be still." And there is peace, but only for a little while; then the storm rises again to break with more appalling fury. Help, is the death-cry that rings through his soul; but he durst not utter it. Help, shall he breathe it to a loving wife? It will kill her love, if it will not kill her. Shall he hint it to his children? They will shrink away from him in terror. Shall he tell his best friend? From that moment the best friend will not know him more. Help. Branded like an outlaw, stricken like a

leper, is there none that can give help?" Yes, there is one. While that most unfortunate of human beings cannot go to wife, or child, or friend, he can come to one who can and will give him all the help within the power of man. There is one to whom he can come and say: "Can you keep my secret; will you?" and he will answer, I can, and will, sacredly. "And will you help me?" Yes; all that man can do, I'll do for you. "Have you a spirit of iron, unbending, hard unto apparent cruelty, to overrule and master a wayward mind." Yes, sir. "Have you a patience that will be equal to a long and desperate struggle with a rebellious will?" I have. "And when my heart is breaking—and my soul sinks down in hopeless despair, have you a heart that will make you stoop down like a mother over a sick child to caress it back to health and life?" Yes, I have. "And have you the strong heart to do all this in spite of the disheartening prospect of failure in the end, and no thanks for your trouble but those of a poor fool?" I have. "Then, Oh Alienist, I, though half a fool, have wit enough yet to declare, that in the holy precincts of man's heart you should rank second to none, and in the sanctuary of man's soul you should stand hand in hand with man's other comforter in his hours of supreme trial, the priest of God."

II. AFFECTIVE INSANITY.

Just as mental insanity consists in a mental state that departs from that which is normal to the human species, so affective insanity must be a state of the appetences deflecting from that which is normal to the species.

DEFINITION.—There is a two-fold appetite or appetence in man, the one sensitive, the other rational. In their operations each of these appetences follows its own kind of knowledge, for an object must be known before it can be desired, according to the old axiom, *ignoti nulla cupido*. If then, the action of the appetences is to be normal, it stands to reason that the first requirement is, that knowledge be normal; and, vice versa, if knowledge be abnormal the behavior of the appetences will be abnormal. This conclusion applies with as unfailing certainty to the free appetence of the will, as to the spontaneous appetences of the passions; for it is the natural law for both to have knowledge

for their incitement and their guide. The fact is unquestionable; the passions follow knowledge by a blind impulse; the will follows it freely, it can choose, but its choice must be to follow some knowledge, some judgment, or some notion rather than another. If then knowledge is abnormal, the passions and the will must inevitably work in a way that is abnormal. To man's great motor powers, to passion and will, knowledge is as light to the wayfarer; in order to guide him aright, it should be the perfect light of day; in the imperfect light *sub luna incerta*, he is apt to go astray, even though he is free to choose his way.

Our first conclusion, therefore, must be that the state of the appetences is abnormal when knowledge is in an abnormal state; in other words, affective insanity is caused by mental insanity. When, therefore, there is a clear case of mental insanity, the nature of affective insanity is easily understood and accounted for; and for such a case a definition would be that "affective insanity consists in an abnormal state of the appetences, induced by abnormal knowledge, produced by permanently impaired organism."

This, as I remarked, is evident; the difficulty in the discussion of affective insanity comes with cases in which the mental process seems to be normal. I say, seems to be, advisedly, for every experienced alienist will readily grant that in many cases it is a difficult matter to conclusively determine the presence or absence of mental disorder, and that it may really exist where it seems not to be.

On the other hand, is it so easy to establish the actual existence of affective insanity? That is, is it easy to determine whether certain abnormal actions of the passions and of will deserve to be called insane? For a conclusive demonstration it would be necessary to establish the existence of morbid organism; is that so easy? Or is it fair, without further evidence, to conclude from abnormal action to abnormal organism? It would be, if the abnormal action had no other natural causes, but are there not other causes? There are, as experience attests, and I would instance the following:

1.—*Abnormal knowledge, naturally acquired from depraved surroundings.*—Take the children of the criminal class, the fa-

vorite examples of the pan-alienist. Is there any need of falling back upon defective organism in order to account for the abnormal behavior of their wills and passions? Is it not enough to look at their false principles of conduct, and is it not all sufficient for an explanation of that vitiated knowledge to simply point the finger at their corrupt environment? Such parents, and such brothers and sisters and associates, such teachings and such examples, in a word, such surroundings, are these not reasons enough for moral depravity?

While I admit the existence of heredity, I, for one, am loath to go back and lay all criminal depravity at the door of Mother Nature alone. Certain natural parents may be more unnatural than step-parents; nature is never a step-mother. She does everything in her power to reclaim the child from the sin of the father, and if but parents and others seconded her efforts, even many consequences of heredity could be forestalled, mitigated, or wholly obviated. Why cry out against nature, then, when the crime belongs to others? Why not cry out against the vicious maxims and criminal examples of those who surround the child? Why not blame the environment, and why not apply the remedy there? It has been done before, and most successfully; history attests the fact, the great fact, that Christian truth and morality reclaimed nations upon nations that were sunk in barbarism, nations from whom, if their moral depravity had been organically eradicated as fatally as some alienists pretend, you and I should have received the full curse of heredity, for we are their children.

2.—*Abnormal action of the appetences may, in the next place, be caused by what men call habit.*—Habit is so much an element of human activity as to have deserved the appellation of second nature. It is a well known fact that while operative faculties possess a natural inclination to exert their specific powers, certain faculties, nevertheless, retain a kind of indifference, either as to special actions, or as to the mode of acting, or as to being directed a certain way. Owing to this indifference such faculties present a capability of further determination to act in one way rather than in another, and this determination, inflexion or bending the faculty in one direction, when constant, constitutes a habit.

A habit is, therefore, a certain constant propensity to reproduce acts of the same kind. Since a habit cannot be naturally formed except by repetition of the same acts, it is evidently an acquired, not an innate, tendency or propensity of an active power. Experience shows that men actually thus form by repeated acts, virtuous or vicious habits, but more frequently the latter than the former. Experience further attests that when depraved habits become inveterate, free will finds it a matter of the greatest difficulty to resist a tendency which, by its own fault, has become so strong and constant as to be all but natural. The difficulty of resisting a vicious habit grows in proportion to its strength, and as the will possesses only a limited amount of power, the chances of successful resistance diminish in proportion to the growth of the habit. In itself the will is not weaker; it is so only in proportion to the stronger habit. Freedom of will, its power to go counter to the habit, remains; but the violence of the struggle may become such that the will either loses courage, or, as happens in certain cases, is at once and completely overpowered. It is a mistake to confound this sort of moral weakness with defective organism, a great mistake to make a depraved habit of the will an organic disease. The experience of physicians attests that a perverse habit of the will by degrees impairs or destroys the organism, and that the cause had been at work for some time before it produced its last disastrous effect. There is no valid reason why this fact should not find its application in childhood, and account for a great amount of precocious moral degeneracy which is usually attributed to heredity or insanity.

3.—*Another cause of irregular action of the appetences may be found in passion, not habitual, but sudden and violent.*—I do not refer here to cases in which the paroxysm of passion produces permanent mental derangement, for in these insanity is unmistakable. The cases under consideration are those in which abnormal action is transient, the individual being before and after the passionate outbreak in his normal state. The question is, when does that transient abnormal state amount to insanity? For an intelligent answer we must distinguish and separate different cases.

FIRST CASE. The outburst of passion may be so sudden and excessive as to make a man act before he can use mind or will. In this case neither mind nor will enter into the action; the action is not human, but animal; there is no insane action of mind or will, for they do not act at all.

SECOND CASE. The fit of violent passion may be such that mind and will act indeed, but only after the imagination has already raised the storm, and involved them in the fury of its tempest. In this case mind and will, from the start, act abnormally, and we have a specimen of genuine emotional insanity.

THIRD CASE. The outburst of excessive passion may be such that mind and will both can and do act normally from the start; mind judges aright, and will is free to act up to what is right. In this case there is clearly no insanity; clearly none in mind or will; clearly also none in the passion, for we now view it as under the stress of an extraordinary provocation, and in that supposition its excessive action is certainly normal to the human species.

FOURTH CASE. A man may knowingly and deliberately, with malice aforethought, nurse a passion purposely for a furious outbreak. When the burst of passion comes, its effect may be either the one or the other of those mentioned in the two preceding cases, *i. e.*, either emotional insanity, or sane action of mind and will.

Such, gentlemen, are the four principal cases in which sudden and violent passion may produce abnormal action of the appetences. Only in the second and fourth is there room for insanity, and even in those cases its existence is not easily demonstrated; for, whether the paroxysm of passion really dethroned reason and will, can be ascertained with certainty only on the evidence of the culprit himself, and his testimony can, at its best, never be worth more than that of an interested party.

RESPONSIBILITY.—What, then, is to be held, you will ask, with regard to moral responsibility in such and similar cases? I answer, that it is one one thing to establish its existence, quite another to measure its degree.

ITS EXISTENCE.—You can establish its existence, provided you can determine that the man knew what he was doing and did it

freely. This is the criterion of human reason the world over, embodied as it is, not only in the moral codes of the nations, but in the conduct of every individual in his daily life. For good conduct or for bad, for reward or punishment, for honor or disgrace, the deeds of every mortal are adjudged by his fellows by that universal canon of responsibility, that he knew what he was doing and did it freely. This universal criterion may be set aside by false philosophies, in theory ; in practice, the universal judgment of mankind will uphold it in all its rigor as a statute of nature's law.

When, teefore, a man knowingly and wilfully encourages a vicious inclination, mankind will, even in this, hold him responsible for doing wrong. Even in this case mankind will not be in a hurry to accept the plea of ignorance. Even of that class of persons who are wont to give their passions free reins, there are very few who do not in a short time fully realize the great personal dangers to which they are exposing themselves, if in nothing else, in bodily and mental health alone. Even they are compelled to admit that to yield to unrestrained passion is to attack one's own nature, that it is a violation of that first law of nature, self-preservation, that, in one word, it is a sin against nature.

Here is the reason, gentlemen, why mankind will not and cannot admit that truly novel kind of medical or legal jurisprudence which out of hand identifies all crime with irresponsible insanity. All crime is abnormal moral conduct, it is true, but not all abnormal moral conduct is insane, simply because it is not all due to abnormal action of mind or imagination, of brain or nervous system. Abnormal moral conduct depends more frequently, depends usually, depends as a rule, on other causes, chief of which are acquired false knowledge, acquired bad habits and the passions. To overlook or ignore these in the examination of abnormal moral conduct is, to say the least, unscientific; for among all the causes of moral depravity these are not only the most palpable, but also the most universal. Yet, in the face of this fact, there are some who will assert that a child who acts on wrong principles of conduct learned from parents, is insane ; that a youth who deliberately contracts a bad habit is insane ;

that the men and women who give their passions lawless scope are all insane ; some assert all this. I will not challenge them for proof ; I will merely ask what would be the condition of mankind, if half the assertions were true ? Are the lower classes alone tainted with false teachings and maxims ? Are they the only ones that contract bad habits ? Or do they alone let passions run riot ? In nature's temple, as in God's, I dare say it, there is at least one Pharisee to every publican, and the mere tearing of the mask from the Pharisee's face would every time justify the publican. It is the fashion to always point the horrible moral of insanity and of crime to the lower classes, so much so that one is tempted to ask, does the ignominy brand them alone ? Is it not to be found in the higher and better classes ? All things considered that ought to be considered, taking the difference of environment and making due allowance for it, what class is more deeply or more darkly branded ? I merely ask the question, with the profoundest respect, nay, with a religious reverence for the sacredness of professional secrecy.

I have heard insinuations that are not obscure, and hintings that are not dark, that the evils of insanity and moral depravity should be lessened by the privation of the power of procreation. It might be asked whether there is not too much interference with that power already ; or, if that question be unpalatable, whether the privation suggested will compass the end intended ? That experiment was tried before and on an extensive scale, perhaps for the same end, perhaps not, but history attests that eunuchism did everything but remedy the moral depravity of ancient Rome.

It is the sincere hope of all good men that the profession of this country will not stand sponsor for the abnormal medical jurisprudence which is being advocated by a few individuals, whose chief aim seems to be to distinguish themselves by creating a sensation. The profession cannot do so without compromising its good standing before the public. In the eyes of the public it ranks next only to the clerical profession, as an institution which is to spread and preserve in society the wholesome leaven of sound morality. This is the high estimate which the profession has won from an intelligent people, and how well merited

it is, and how honorable, how mighty and far reaching for the individual and the common weal, I need not explain. Surely, the profession ought to be as jealous as it is proud of this its honor, and ought rather to elevate its tone than suffer it to be lowered, and certainly lowered it would be inevitably and beyond redemption, if ever it were to father that medical jurisprudence, whose first principles strike at the foundations of all law and order.

Neither mankind at large, nor this nation in particular, will ever admit any such self-constituted jurisprudence. Mankind in general, and our educated nation in particular, will contrive to uphold nature's law of responsibility, that, namely, in man's sane estate, his will does not become a prey to depraved passion, save through his own fault, and guilty responsibility. There is no fatalism about his moral depravity. His will is not the slave, but the master of all his autonomic faculties; by that will he can control himself, and that to do so effectually is law, nature herself will demonstrate to the world by punishing with her own hand the offender.

In order to establish the existence of responsibility, then, it must be shown that a man knew what he was about, and acted freely, and this much is in the generality of cases feasible.

THE EXTENT OF RESPONSIBILITY.

To determine the degree, the extent, the amount of responsibility is, as I remarked, quite a different and far more difficult undertaking; for to know precisely how guilty a man is of his wrong-doing belongs to that supreme Judge alone, whose omniscience can alone fathom the mind and will and heart of man. In dealing with crime, therefore, human justice can only act humanly and humanely. In the interest of the common weal, it must judge and punish crime, as far as human knowledge and equity can guide it. In the letter of the law it can only define crimes objectively, and enact for mitigating circumstances; in dealing with crime subjectively in the culprit, it can only establish the fact of the crime and the fact of the criminal's responsibility, as far as it is given to man to judge; in the matter of adjudging responsibility, human justice acknowledges the possibil-

ity of sad mistakes, but as long as human justice remain Christian, it will guard against that danger by upholding that overruling law of Christian charity, which gives the accused the benefit of the doubt, and seasons justice with mercy rather than severity.

THE MANAGEMENT OF THREATENING ANTEPARTUM ECLAMPSIA.

BY L. CH. BOISLINIERE, M. D., LL. D.

[Read before the St. Louis Obstetrical and Gynecological Society, Dec. 15, '87.]

THROUGH the courtesy of our President, Dr. W. Coles, I was lately called in consultation, to a most instructive case of puerperal eclampsia, Dr. Laidley being associated with us in its conduct. Mrs. W., a young woman of previously excellent health, of rather full habit, and the mother of two healthy children, previous labors normal, and now in the eighth month of her third pregnancy.

She had been seen by Dr. Coles about a month before the present labor; two weeks later, she presented edema of the feet and the face and cephalalgia. A few days after, her urine became scanty, and showed a great amount of albumen. Two days before the first convulsion, she complained of most severe cephalalgia, the pain situated chiefly on the top of the head; the next day she showed symptoms of disturbed vision, flashes of vivid light, diplopia, dimness of vision, and finally complete amaurosis; when without any premonition, and like a flash of lightning in a serene sky, she was taken with a violent attack of convulsions lasting only a few minutes, and followed by stertor and coma of short duration.

Dr. Coles being immediately sent for, arrived at the house a few minutes before she had another convulsion of longer duration and followed by more prolonged stertor and coma. I came to the patient's house, just in time to witness the explosion of another most violent attack, followed by great stertor, biting of the tongue, and prolonged coma.

In consultation with Drs. Coles and Laidley, seeing the urgency of the case, and in dread of the return of another convulsion, it was decided to adopt at once, the time-honored, orthodox method of venesection. This was done, and thirty-two ounces of blood withdrawn from the arm in a full stream, *pleno rivo*. This was followed by an hypodermic injection of one-fourth grain morphine and moderate doses of chloral, as the patient had sufficiently recovered to swallow. Two drops of croton oil were also given and repeated once—producing a large evacuation. Dr. Coles had already on his arrival upon the second attack, given her ten grains of calomel put dry on her tongue, as she was then only semi-conscious. Moderate inhalations of chloroform were given at the onset of every convulsion, no vaginal examination being then made, for fear of exciting another attack; and as the patient was not in labor, abdominal palpation was resorted to, showing a vertex presentation.

The child's heart, by auscultation was found to be very feeble and intermittent, and no fetal motion could be perceived.

During the intervals of the convulsions, an introduction of the catheter showed marked suppression of the urine, since the first convulsion and till the birth of the child. The quantity of urine increased rapidly after the child's birth, the albumen gradually disappearing within two days.

It is well known that ischuria is one of the symptoms of uremia or urinemia.

Considering the dangerous condition of the child, and the probability of other convulsions from the present ischuria, after due consultation, it was decided to induce premature labor. This was at once undertaken and carried out with his usual skill by Dr. Coles, using the Krause's method, as the safest and speediest. Within an hour, labor set in, the cervix dilated rapidly, the pains became severe. The membranes protruded, were ruptured and a living child was safely delivered with the forceps. The child was not large but lively, is now in good health and growing. The whole labor was terminated within four hours.

THE DIAGNOSIS OF ECLAMPSIA.—This is very important as a guide to treatment, and because puerperal eclampsia may be mistaken for other affections, especially if the patient is seen during the period of convulsions or coma.

Differential Diagnosis.—*Puerperal Eclampsia.*—Pregnancy evident, albumen in the urine. Progressive rise of temperature until death. In uremia gradual fall of temperature until death, and soon becomes sub-normal.

Epilepsy.—Convulsions chronic,—often aura epileptica, clonic and tonic convulsions as in puerperal eclampsia, which epilepsy resembles very much. It must be differentiated by the previous history, the absence of albumen in the urine, of edema, the fall of temperature after rise at the onset of the attack, rise again only at the approach of another seizure. These generally return at longer intervals. The same curve may exist in eclampsia, and the rise of temperature is generally progressive, but here we have the antecedents and the recurrence of the convulsions at short intervals, edema and albumen in the urine.

Hysteria and Hystero-Epilepsy.—Intellect remains intact, variety of movements, winking of the eye-lids, bolus, oppression, no coma, emission of a large amount of clear urine, no albumen in urine, gradual rise and prompt return of temperature to the normal. *Cerebral Apoplexy*, deep coma, paralysis or paraplegia. Initial fall of temperature followed by a marked rise, a sign of impending death. *Cerebral concussion* always a fall of temperature. (Hypollite).

The differentiation of the above conditions resembling eclampsia, is very important, in order to adopt a proper treatment of puerperal convulsions.

Treatment.—The management of these convulsions when present or only threatening may be medical or surgical, as in the case above narrated, which was, as stated before, safely terminated by the induction of premature labor.

When considering the propriety of inducing premature labor in any case, several methods will suggest themselves to the accoucheur.

The Krause method of catheterization of the uterus was selected as the speediest, most certain and safest. This is performed with patient on her back at the edge of the bed, placed on an india rubber cloth, forming a gutter. Before dilatation begins the ascending douche of warm water should be used with a moderately raised fountain syringe, injecting slowly a gallon of

water, being made aseptic. This should be repeated, if necessary, and will generally soon cause dilatation of the cervix, which is, however, the slower to take place the earlier in the pregnancy. If the dilatation is incomplete, the Barnes' dilator may be used, and, when the cervical orifice is open enough to introduce the ends of two fingers, the patient on her back, her thighs flexed, a new No. 12 English rubber catheter, previously rendered aseptic, is slowly and gently guided into the uterus, following the axis of the superior strait until it penetrates between the uterus and membranes, avoiding rupturing these until dilatation of the cervix is almost complete. The catheter should be introduced to the depth of seven or eight inches, the vaginal end tied in a knot and secured by a firmly pressed tampon, the presence of which will produce uterine contractions. The danger of separating the placenta is not to be considered, as the track made by the catheter will soon fill with clots that will prevent further hemorrhage from the placental site.

Usually in a few hours the labor will originate and soon terminate.

Many other methods have been recommended, but they are either unsatisfactory or fraught with danger to the mother and child; for instance, ergot, the premature rupture of the membranes, sponge tents, electricity, etc.

The method of Cohen is now regarded as a very dangerous procedure, by following which I came near causing the death of two or three women, gave them excruciating uterine colic, and obtained no result as to the labor. It consists in injecting about a quart of warm tar water between the membranes and the uterus, this to be repeated in case of failure at first. Although success has been reported in a few cases by this method, in many other instances, it has caused the sudden death of the mother from the shock or the entrance of air into the uterine sinuses and rupture of the uterus. This method should therefore be absolutely rejected.

Rupture of the Membranes.—Before dilatation, this may cause the death of the fetus in contracted pelvis, when the labor is slow, and is not to be adopted when a rapid delivery is required for the safety of the mother and child.

The sponge-tent, laminaria, the vaginal tampon, the colpeurynter, Barnes' dilators, act too slowly for cases requiring speedy delivery.

The Kiwisch method is to be used only with the object of producing preliminary dilatation of the cervix previous to performing uterine catheterization by the method of Krause. When using this method with the patient on her back, etc., as described above, the water made aseptic should be tepid, a fountain syringe without the terminal opening of the tube, a slow continuous stream not from any height and very slowly escaping to avoid overdistention of the vagina, its rupture, and parametritis.

A few cases of death from this method are reported, death being caused by the entrance of air into the uterine sinuses in cases of placenta previa on premature detachment of the placenta, otherwise air would not have reached the uterine sinuses.

Preventive Treatment.—1. Examine occasionally for albumen the urine of every pregnant woman with edema of the feet or lids or who presents marked nervous disturbances, such as cephalalgia, vertigo, aberrations of sight, amblyopia, etc. The digestive and urinary functions should be rendered normal. If severe headache or serious nervous disturbances are frequent, the most reliable preventive is a moderate bleeding from the arm, to be repeated if necessary.

The greater frequency of attacks of eclampsia recently noticed, is probably due to the neglect of this great prophylactic measure, so successfully resorted to by the older accoucheurs, Dewees and the accoucheurs of London and Dublin, and also of France.

After venesection, purgatives should be used; the old-fashioned black draught was successfully resorted to by the late Dr. M. M. Pallen, a skilled obstetrician in his day.

If necessary, small doses of tartar emetic, repeated every half-hour until nausea but not vomiting is produced. This was Collins' treatment.

Next in usefulness can be placed cream tartar continued for weeks, if necessary. This is the recommendation of Braun, who believes that this drug neutralizes the excess of carbonate of

ammonia in the blood, which he and Frerichs taught to be the cause of puerperal eclampsia by the conversion of urea into carbonate of ammonia under the influence of certain ferments, as found by Delfis and lately by Doléris and Butte.

Thus may be explained the good effects of chloroform in convulsions, as chloroform always produces sugar in the blood and urine, the sugar neutralizing the urea in the blood, and the chloroform destroying the peculiar ferment which causes the conversion of urea into carbonate of ammonia.

Clinical facts indeed, seem to confirm the above theory, as a certain number of cases of eclampsia are successfully treated by chloroform alone. This happens with patients that are chlorotic or not phlethoric.

That all albuminuric women are not attacked with eclampsia is true, although the converse of this proposition is also true, that nearly all eclamptics have albuminuria. This is a very delicate point to decide, and the whole matter should be very carefully considered in consultation before adopting heroic methods. I may be permitted to offer a hypothetical case. A woman with marked albuminuria, having intense headache, especially on the top of the head, vertigo, dimness of vision, photopsy, amaurosis buzzing in the ears, is pregnant seven to nine months, child living. This woman has a good, often a strong pulse. Her urine is diminished in quantity and highly albuminous. The measures resorted to above, have failed or only partially removed the above symptoms.

She has been freely bled two or three times, has been freely purged and taken diuretics, perhaps small doses of tartar emetic—and still presents the above symptoms. In view of the great danger that the mother and child are running into—one mother in three, one child in two, dying—I firmly believe that we would most certainly be justified in producing premature delivery to save both mother and child.

This course is the more to be undertaken, because the operation adopted is harmless and can be performed in no hurry and under the most favorable circumstances for its success—every precaution can beforehand, be taken, even to the procuring of a healthy wet nurse—an incubator, etc.

This doctrine I would therefore like to see adopted under the above conditions, and especially should it be resorted to if, in the latter month of pregnancy, one, two, or more convulsions have already occurred, as in the case above narrated.

I have more than a dozen times, induced premature labor for various reasons. In one case by Krause's and Barnes' method, I succeeded in one hour. It was the case of a patient deeply cyanotic from pulmonary congestion and emphysema. There was no time to be lost. The patient's life was saved by the operation. Dr. Thomas states that the labor was completed in one hour in a case in which he induced premature labor as an operation of urgency.

After all that has been said about eclampsia, I shall not enter into a lengthy discussion of its etiology, symptoms, etc., but touch upon a few interesting points connected with the management of threatening antepartum eclampsia. It is fully established that in 95 per cent of the cases of eclampsia, albumen is present in the urine, and a certain principle, a ferment is usually admitted to be modified urea or some excrementitious matter furnished by the mother and the child, a blood poison, which seems to have been discovered lately by Doleris and Butte. They experimented with the blood of five eclamptic patients, and found in the blood a crystalline substance which was toxic to rats and sparrows in almost infinitesimal doses. They also state that the proportion of urea in the blood was not excessive, its amount being too small to attribute to it the cause of eclampsia. This coincides with the views of Frerichs, Naegele, etc. As the basis of a preventive measure I must allude to Frerich's theory of ammoniemia which, after all, seems the most probable; as he states that uremic intoxication was produced not by the assimilation in the blood of urea as urea proper, but by its transformation in the vascular system into carbonate of ammonia under the influence of a ferment. This ferment has been lately demonstrated by Doléris and Butte, as above stated.

The presence of carbonate of ammonia in the expired air can be demonstrated by the means of a glass rod moistened with dilute hydrochloric acid, which, being placed near the patient's mouth, at each expiration, shows the presence of light white

clouds. Kuehne and Strauss have since improved this method. Moreover, autopsies have demonstrated excess of carbonate of ammonia in the blood of mothers and fetuses.

Spiegelberg made the same observation as to the presence of excess of carbonate of ammonia in the blood of a woman seven months pregnant, and published this fact. This gives support to the suggestion of Frerichs and Braun who recommend the use of cream tartar and benzoic acid to neutralize the excess of carbonate of ammonia. I have several times followed with excellent results this suggestion in the case of pregnant women with albuminuria.

Albuminuric women, according to Schotten and Peter, cannot properly be called affected with uremia, but with urinemia, as the kidneys not only secrete urea, but also other substances as yet not well known, such as creatine, creatinine, leucine, etc., and certain ferments. The amount of extractive matters in the blood has been demonstrated to be two or three times greater in the urine of albuminous women. This retention of these substances, urea, creatinine, etc., and all the material of urine in the blood, acting as ferments, seem to have been proved the exciting cause of eclampsia.

I mention the above theories only as suggestive of the preventive treatment of albuminuria.

As eclampsia is almost absolutely connected with albuminuria, the best measures to be adopted are those which correct the albuminuria.

Charpentier recommends an almost exclusively milk diet, white meats, eggs, until the albumen disappears. The urine should be examined every four or five days, after the disappearance of albumen. He recommends bark and iron tonics with gentian, and gives frequent laxatives.

Frerichs, in conformity with his theory, advises the use of cream of tartar, lemon juice or benzoic acid with the object of neutralizing the carbonate of ammonia produced in the blood by the decomposition of urea, and other extractive materials in the blood.

But foremost of all other remedial preventives in a woman with above symptoms, is certainly venesection, not very abun-

dant, and to be repeated if necessary. Dewees and others have maintained that cases of eclampsia are more frequent now than formerly because the practice of bleeding pregnant women as a preventive has fallen into desuetude. However, this "lost art," as Gross called it, is being learned again in this and other acute diseases.

It is a vain fear that the loss of twelve or sixteen ounces of blood will weaken a woman whom nature bleeds to the amount of six or eight ounces every month for thirty or forty years. Moreover it must not be forgotten that owing to the hydremic condition of all pregnant women, the blood lost by venesection, is in great proportion water. Who of you has not seen women in confinement lose torrents of blood and not be permanently affected by this loss? Blood forms again soon, it is true, but the bleeding has in the meantime relieved intra-cranial or pulmonary obstruction and excrementitious matter has been got rid of. This is therefore the measure chiefly to be relied on in the prevention of threatening antepartum eclampsia. Afterwards can be adopted the palliative measures above mentioned.

Finally, if venesection and other measures fail in removing the albuminous condition, and threatening symptoms continue, the child being viable, there should be no hesitation in inducing premature labor for the sake of the child and the mother. Why hesitate to adopt such a harmless procedure?

I do not hesitate to decide in the affirmative, although several authorities are against the procedure, but others just as great are in favor of the operation.

After inducing premature labor, the duties of the accoucheur are not at an end. He must secure to the child artificial heat, either by bottles of warm water placed along side of it, for several weeks, a proper incubator, Tarnier's couveuse, or "hatching" box—proper alimentation, a wet nurse secured beforehand. It is to be observed that children born before their time will constantly sleep until they have reached the full nine months of utero-gestation. They should therefore be wakened frequently to be nursed.

OBSCURE INJURIES OF THE ELBOW IN CHILDREN.

BY A. J. STEELE, M. D., *Professor of Orthopedic Surgery and Joint Diseases, St. Louis Post-Graduate School of Medicine.*

[*Read before the Medico-Chirurgical Society.*]

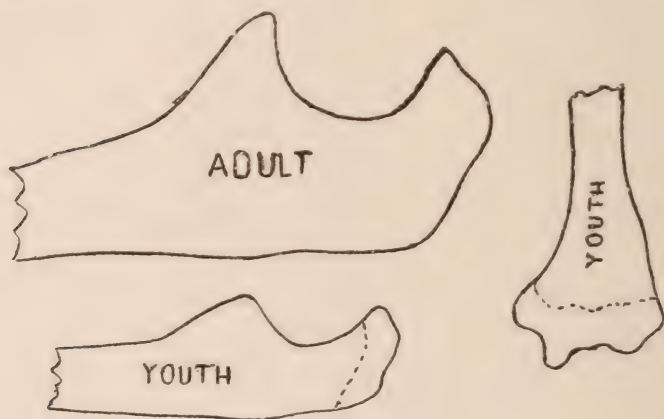
THE injury to the elbow may be in the nature of a fracture, of a dislocation, of the two combined—the one complicating the other—of a sprain or of a bruise; and I have seen a periostitis attending the latter. These several injuries are mostly the result of direct violence, and often difficult to diagnose because of the obscurity of the bony landmarks from the rapid swelling of the part, and because in the young the structures of the joint are more complicated than in the adult, the several epiphyses so rendering it, and yet recognition of the exact injury in any case is the more important as immediate steps should be taken to prevent ultimate deformity or impaired motion.

We should be guarded both in our diagnosis and prognosis. If any doubt as regards the former exists, chloroform should be administered, that a thorough examination may be made, and if necessary, while the patient is still under the anesthetic, reduction may be accomplished. We can not reason with children as with adults, thus they will not voluntarily submit to thorough examination; besides children take chloroform so kindly that I am much in the habit of using it. It is always well to make comparison of the injured with the sound limb. It refreshes one's memory as to the anatomical points, and even though much tumefaction of the parts may have occurred yet comparative distances may be taken and thus evidence of shortening or lengthening be furnished.

Several cases of elbow injury in children having fallen under my observation in private and dispensary practice during the past year, I have been made to realize how difficult it is at times to exactly define the lesion, and if we may believe the testimony of others, my own experience is not peculiar. The reason for this difficulty of diagnosis, as before hinted at, is the

tumefaction of the part from the rapid effusion of serum obscuring the prominences.

I have had uncomplicated cases of dislocation of the elbow backward, readily recognized, not merely by the marked and unusual posterior projection, but also by the disturbed relation of the olecranon to the epicondyles, and too as readily reduced, and further with rapid recovery from soreness and stiffness. This latter happy result being due to the fact that I did not allow any passive (or active) motion of the part until all inflammation had entirely subsided.



Given a severe injury to or near a joint of an old person, and our experience at once concludes a fracture present, likewise the same in a child; the brittleness of the bones in the one instance and the epiphyseal condition present in the other predisposing to such lesion, whereas in the middle-aged adult, dislocation would be suspected. From this it would seem that dislocation of the elbow occurring in the child were quite exceptional to the general rule. Now this is true, and is due to the fact that the coronoid process is comparatively not as prominent in the child as in the adult, (see cut,) and offers but little resistance to the backward displacement of the ulna—or it is easily broken down or off. While such dislocations are not infrequent, yet they are often attended with complications such as that just re-

ferred to—detachment of the coronoid or a partial detachment of the humeral epiphysis. The former lesion or complication might not be recognized but would find practical bearing in the liability of the joint to redisplacement—the check normally preventing which being destroyed.

I am reminded of a parallel accident occurring in my first year of practice ; a dislocation of the femur upwards on the dorsum ilii, which being reduced failed to remain in place, the upper edge of the acetabulum having been fractured.

In the case of a luxated elbow with detachment of the coronoid, the reduction not remaining permanent, the best retentive appliance would be a posterior hollow or trough splint, right angled, taking in the arm and fore-arm, found ready-made of felt, or easily prepared of leather or gutta-percha. In the second case of partial epiphyseal fracture of the arm bone complicating the dislocation, reduction having been made, and a posterior prominence still existing with the relations of olecranon to the epicondyles normal, and a modified crepitus felt, we would be able to recognize the lesion, being reduced, all under chloroform, it is retained by the same trough splint properly padded.

All this will be better understood if we bear in mind the line of the epiphyseal connection with the shaft of the humerus. The distal end of this bone has several ossific centers, but may be considered as a whole with the junction transverse immediately above the condyles, (see cut); now it is possible for a separation or fracture to occur just here without a dislocation, the epiphysis being carried back with the bones of the fore-arm. At first blush the appearance would be as of a dislocation, but distinguished from that by the still existing normal relations of the olecranon to the epicondyles, and by crepitus and by increase of the posterior projection in extension of the fore-arm. If not recognized at the time, being obscured by the swelling, it would become evident later on as the tumefaction subsided and after a few months it would be known from the increased thickness of bone and the stiff and swollen joint. Do we not occasionally see adults with deformity of the elbow, posterior projection, and a shortened arm, who possibly in childhood suffered fracture of the epiphysis which

uniting by bone prevented further growth at the lower end and thus produced a shortened arm? Such result however, would not be an invariable rule, for if the inflammation were not high, the separating cartilage would not ossify.

These two lesions, viz., backward dislocation of the bones of the fore-arm, and fracture of the humeral epiphysis have been in practice confounded, the one mistaken for the other, and surgeons lost repute thereby.

Partial separation of the epiphysis is more frequent than the complete, and more difficult of diagnosis. With either of these there may exist an oblique fracture of the shaft.

If in doubt as to the exact lesion, conclude that the epiphysis is damaged.

A reduced elbow dislocation in the adult soon finds a restored and useful joint. Such excellent and rapid result is frequently exceptional in the child, the elbow remaining restricted in its movements and weak because here the luxation has been complicated with a partial separation of the epiphysis with torn periosteum and deposit of new bone. Thus we find a thickening and such changes as may puzzle the best of surgeons. But don't mistake these cases of partial separation for old dislocations and propose reduction. In time excessive bone will be absorbed and rounded off, and useful joints be had.

Of dislocations it must be borne in mind that the articular separation may occur not only backwards but also outwards inwards or forwards—the latter being extremely rare. The increased width of the joints will readily indicate the lateral forms. Reduction being accomplished be not satisfied until the joint is well flexed, and so secured until all inflammation has subsided.

We have known distinguished surgeons to be greatly chagrined by neglecting this precaution, and allowing the joint to be extended and unsupported to find a redislocation occur.

In our experience the most frequent uncomplicated fractures have been of the internal epicondyle and condyle, the former not extending into the joint, the latter recognized by its mobility, crepitus and prominence of the olecranon on extension of the fore-arm. On flexion of the joint the fragments come into good position and may be thus retained by the posterior angular

splint. When the external condyle is fractured the head of the radius follows its movements, crepitus being elicited by its rotation, and the fore-arm inclines more outwards than normal. Treatment in the flexed position and posterior splint gives the best results.

I believe the coronoid process of the ulna is not fractured except when attended with the posterior luxation previously referred to.

The olecranon epiphysis is separated by direct violence and drawn upwards by the triceps. If unrecognized from the great tumefaction, withhold judgment until cooling applications and rest have rendered the bony points visible. If the diagnosis of this fracture is positive or even suspected, the extended position of the fore-arm should be insisted upon.

I remember, as doubtless do you all, the dread and cries of the little patients manipulated by our preceptors instituting passive motion lest a recently fractured or otherwise injured elbow should become ankylosed. Observing that such cases were not especially rapid in their recovery I later in other cases resorted to lateral angled splints which were changed as regards the angle every few days. This prevented a fixedness in any one position, later on passive movements were instituted for the same reason. Nevertheless in many cases the results were prolonged, and ultimately impaired movement. The treatment was painful and tedious, and the results unsatisfactory. Where was the error if any? Was my instituted motion too active and too premature? I was but following the teachings of the oracles which tell us that in fractures at the base of the condyles, as early as the seventh day the splint should be removed, and while the fragments are steadied, gentle passive motion should be instituted, to be repeated every third day, "in order to prevent as far as possible ankylosis." Granger, in fractures of the internal epicondyle, advises that we ought to instruct the patient to flex and extend the arm daily from the moment of the accident. Another authority speaking of fracture of the internal condyle says: "It is not from displacement as much as from permanent muscular and bony ankylosis that serious maiming so often results," and advises that within seven days

passive motion must be commenced and perseveringly employed from day to day until the cure is accomplished; "again on dislocation of the elbow, after reduction, he says: "At a very early day we ought to begin to move the elbow joint in order to prevent ankylosis." Thus we are taught and so we practice but I doubt whether it is good surgery. I believe that while inflammation exists the parts should be immobilized, and no motion allowed until all inflammatory action has subsided.

The stiffness or ankylosis is due to inflammation and just in proportion to the activity and continuance of the latter will be the liability to and chronicity of the former. Now these injuries to the child's elbow, which we have been considering, and to which may be added severe bruises and sprains, are attended with inflammation of the joint, the rational treatment of which, if we would avoid stiffness, is quiet until inflammation has subsided: motion will but aggravate and continue it.

A recognized authority speaking of a case of injury to this part says. "From this date until the conclusion of the treatment the dressings were removed often and the elbow moved as much as was possible to move it. Seven months after the accident the elbow was almost completely ankylosed at a right angle. Six years later the ankylosis had entirely disappeared." It is evident therefore that the ankylosis was not bony, and we are forced to believe that the persistent movements of the joint, instituted by this heroic surgeon, but prolonged the inflammation and added to the stiffness. Joints that have recovered from the inflammation incident to injury or disease, regain motion earlier by their being employed in their ordinary manner, *i. e.*, actively. Joints that are not in a healthy state automatically resist attempts at compulsory employment. Passive motion applied to joints still suffering from injury or disease delays recovery, and should not be applied to joints cured, if active motion is possible, for it may delay the event of complete restoration of function.

It is lamentable that at the present day this at times injurious and always useless practice of passive motion is still advised in our text books and periodicals as being the proper practice to employ for restoring motion temporarily lost in a joint after lesion.

Seeing some of these cases of elbow injury for the first time weeks after the accident, the difficulty in making out the diagnosis, the confusion in the landmarks, and the interference with the motion—the locking—may all be due to a deposit of new bone, because in the accident and attending the epiphyseal separation the periosteum may have been torn up. This new bone causing unusual and marked projection will in time in the young subjects become markedly absorbed and rounded off, restoring both more normal proportions and use.

Seeing cases very late where much deformity exists either from suspected dislocation or epiphyseal fracture, heroic surgical measures should not be attempted, for irreparable injury may be done; the golden moment for *redressement* has passed, and nature will doubtless mould and adapt as the months roll on.

At the close I will say that elbow lesions in the child are much more complicated and obscure than in the adult, because of the existing epiphyses and their liability to separation, occurring either independently or in connection with a dislocation. Let us be careful not to confound a detachment of the lower epiphysis of the humerus with a posterior dislocation of the elbow. If the injury is at all obscure give chloroform. Any doubt existing as to what position it were best to place the limb in, put it up at about a right angle, and be not content unless it can be flexed, and do not allow the joint to be moved until all inflammation has subsided. Of prognosis be guarded, but the probabilities are that a useful joint will be had in time.

BENZOATE OF SODIUM IN THROAT AFFECTIONS.

BY L. CH. BOISLINIERE, JR., ST. LOUIS.

DURING the past two years the benzoate of sodium has constantly been used in the treatment of throat troubles in the Throat and Chest Clinic of the St. Louis Mullanphy Hospital, the Throat and Chest Department of the St. Louis Polyclinic, and the Throat and Chest Clinic of the St. Louis Medical College.

The reports of these clinics show that there were treated during last year alone nearly thirteen hundred patients, who visited the clinics six thousand times. This vast number of patients gave a large field for experimentation in the therapeutics of throat affections. The success that has attended the administration of the benzoate of sodium has been very gratifying and in some instances almost phenomenal. It was given principally in (1) acute follicular tonsillitis, (2) acute erythema or edema of the fauces, (3) pseudo-diphtheria and (4) in diphtheria.

1. IN ACUTE FOLLICULAR TONSILLITIS.—By acute follicular tonsillitis we mean a disease, probably constitutional and somewhat contagious, which commences with a chill, more or less pronounced, followed by a high fever (temperature, 101° - 104°). The tonsils immediately become swollen and red, deglutition is very painful. On inspecting the throat we find the tonsils dotted over with small red elevated points, the apices of which are filled with a white secretion of the consistency of cheese. These points or follicles in the tonsils are the elective seat of the inflammatory process, the tonsillar tissue between them being free from inflammation. That it is a distinctively follicular trouble is evidenced by the fact that, when it spreads to the pharynx, the follicles alone in the pharynx are involved. The usual duration of the disease is from two to five days. (Mackenzie.)

There have been treated at the various clinics above alluded to, upward of one hundred cases of acute follicular tonsillitis. This year's report of the St. Louis Polyclinic shows fifty-one cases of acute follicular tonsillitis.

In treating these cases no local application whatsoever has been used—no gargle prescribed. We have simply used the following formula :

Benzoate of sodium,	-	-	-	-	3j-3iv
Glycerine,	-	-	-	-	-
Elix. calisaya bark,	-	-	-	-	aa. 3j.

M. Sig. One teaspoonful every hour or every two hours.

In the analysis of seventy-five cases, being the last seventy-five treated, we find that :

1. By the use of the benzoate of sodium the disease is cured

in from twelve to thirty-six hours, a great gain in time, as the average duration of the disease has been heretofore from two to five days. (Mackenzie.)

Of the seventy-five cases,

41 reported well in 12 hours,

31 " " 24 "

3 " " 36 "

Average, 20 hours.

In private practice, when the cases could be watched more carefully, we have frequently seen the white cheesy points disappear in from eight to ten hours.

2nd. That the benzoate of sodium undoubtedly controls the febrile elements in the disease.

3rd. That it may be given with impunity, even to children; we have never been able to discover any bad or even disagreeable effects from its action.

4th. That it is a valuable addition to the remedies used in throat affections, especially in an acute inflammatory condition of the tonsils, when applications only aggravate, and gargles increase the trouble.

2. BY ACUTE ERYTHEMATOUS OR EDEMATOUS SORE THROAT we mean ordinary sore throat, usually caused by exposure to cold and wet, a trouble in which there is a redness involving the tonsils, anterior and posterior pillars of the fauces, uvula and pharynx, accompanied by edema of the dependent parts. There is pain on deglutition, slight fever and general malaise. The benzoate of soda seemed to act very nicely in these cases.

Although we generally applied or prescribed some mild astringent, nevertheless the benzoate seemed to abort the trouble to some extent.

3. It has been noticed that during an epidemic of true diphtheria many of the exudative throat affections assume a diphtheroid appearance. For instance, in acute follicular tonsillitis the discrete inflamed follicles coalesce, the exudation becomes inspissated, somewhat organized and membranous; it is with difficulty detached from the tonsils, and, when forcibly removed, leaves bleeding points. It very closely resembles diphtheria, and in many cases it is impossible to make a positive differential

diagnosis. The membrane, however, is usually much whiter than in diphtheria. The benzoate of sodium usually cures these cases in two or three days, and thus assists us in our diagnosis. However, in some cases the membrane has not this white flaky appearance. It is dark, often black in parts, yellowish, thick, very tenacious, and sometimes impossible to remove. It has to all appearances the characteristics of a true diphtheritic membrane. In these cases (we recall four during the month) we have prescribed :

Hydrargyri bichloridi,	-	-	-	gr. ss
Sodii benzoati,	-	-	-	℥ss-℥j
Glycerinæ destillatæ,	-	-	-	
Elix. calisaya bark,	-	-	-	aa ℥ij.

M. Sig. One teaspoonful every hour or two hours.

In every case the membrane has disappeared in from three to six days.

Taking into consideration the fact that they were cured so rapidly, and believing them to be cases of acute follicular tonsillitis, modified by the influence of the epidemic now prevailing in the city, we were restrained from calling them true diphtheria, but usually designated them as pseudo-diphtheria, or diphtheroid sore throat.

4. We have also had reason to be pleased with the action of the benzoate of sodium in true diphtheria. It seemed to soften the membrane, control the fever, and materially shorten the duration of the disease.

PATHO-BIOLOGICAL LABORATORY.—Dr. Frank S. Billings, director of the laboratory of the Nebraska State University offers the facilities of the laboratory to graduated physicians and veterinarians, who are duly endorsed by Boards of Health, Live Stock Commissions or the President of a University or College with which such person is connected, for the purpose of making original research into the nature and causes of the contagious and infectious diseases of animal life. Terms are very liberal. As the rooms are small, only two persons can be accommodated at a time and arrangements should be made in advance by addressing Dr. Billings at Lincoln, Neb.

EDITORIAL.

THERAPEUTICS OF DIPHTHERIA.

Dr. Simon Baruch, as the result of twenty-five years of practice in which he has had occasion to treat diphtheria of all grades of severity and under all sorts of surroundings and circumstances, has come to the conclusion that disinfection of the throat is best accomplished by the frequent internal administration of tonic, astringent and antiparasitic remedies, not by the brush, probang or atomizer. Neither water nor food should be permitted for ten minutes after the medicine has been swallowed, thus allowing it to bathe the diseased surfaces. When the patient is tractable and willing to aid the attendant, he advises the hourly application of a fifteen per cent. solution of trypsin. In one case a ten per cent solution of papayotin proved equal to the trypsin, but more expensive. In nasal diphtheria he invariably prescribes the trypsin solution to be applied hourly with the medicine-dropper or soft brush, because this can be accomplished without damaging the mucous membrane even in an intractable child. It softens and pulpifies the false membrane, and facilitates its removal by injections of salt water, or 1 to 10,000 bichlor., which in this dangerous form of the disease, he orders to be applied at frequent intervals. When the air passages are involved, he employs local treatment by inhalation of the vapor from boiling lime-water impregnated with oil of turpentine—one ounce of the latter to one quart of the former, used continually. He does not make a tent over the bed excluding the fresh air, but finds it only necessary to direct the vapor by means of a tube to the immediate vicinity of the patient's mouth.

Every case of diphtheria not presenting diarrheal symptoms re-

ceives a full dose of calomel, four to eight grains, according to age. This is followed in six hours, if necessary, by a saline laxative in the mild tonsillar cases, while in the more severe types the action of the calomel is aided by \mathfrak{Zi} to \mathfrak{Zss} of oil of turpentine. The latter usually produces several pultaceous stools. The gastrointestinal tract is now prepared for the reception of food and the necessary medication, the temperature is usually reduced, and the patient's comfort enhanced. Hitherto these were the chief objects of the calomel treatment. He finds additional reasons for its use now, in the fact that calomel in purgative dose has been successfully used to abort other infectious diseases.

Tincture of the chloride of iron he prescribes in all cases of diphtheria in doses of eight to twenty-five drops every hour, as it is used in erysipelas. Only sufficient glycerine and water are added to somewhat soften its astringent taste; the more concentrated, the better the local effect. It is administered two hours after the calomel and continued hourly or bi-hourly night and day. He lays stress upon this one point in that connection, viz., that food or stimulants may precede the iron, but should never follow it immediately.

Bichloride of mercury is prescribed in all severe cases, especially where the uvula, nose, or larynx are involved. He orders a teaspoonful of a solution containing one grain to four ounces of water to be given every two hours, each dose being preceded five minutes by four to six ounces of milk or other nourishment. Thus he gets the local antiseptic action of the solution in the throat and in the stomach it finds a diluent to neutralize its irritant effect. Neither water nor food is permitted for fifteen minutes. The nurse is cautioned to discontinue the mercury on occurrence of either vomiting or diarrhea. He lays great stress on the proper administration and dosing of the iron and mercury, as indicated. He gives the nurse a written order of rotation, the intervals being half-hourly or hourly, as indicated by the nature of the attack, except when the patient does not readily fall asleep after being aroused for treat-

ment, in which case an occasional longer interval of rest is permitted. The plan of rotation is as follows: First stimulant followed by tincture of chloride of iron; second milk, followed by bichloride solution; then other food, preceded by cleansing of the mouth, applications of trypsin, or nasal injections when indicated. Ice is applied externally to reduce glandular swelling.

In addition to the above mentioned remedies Dr. Baruch has come to place very considerable reliance upon the administration of large doses of oil of turpentine which he has used in thirty-nine cases. In only one case was there hematuria; in none did strangury occur. In one case, through a misconception of his orders, a boy ten years of age received an ounce of oil of turpentine, and no unpleasant effect followed. He cites several authorities as to the efficiency of oil of turpentine as a germ destroying agent, and refers to the testimony of eminent therapeutists as to the therapeutic value of this agent in the treatment of diseases of the mucous membrane and in typhoid fever. His practice is to administer it in doses of one dram to half an ounce to children from six to fourteen years of age, once a day, or oftener in cases demanding it. It may be given pure, followed by milk, or mixed with milk, or in emulsion. Vomiting occurs sometimes after the first dose, but it is usually retained afterwards. In about fifty per cent of the cases it produces a laxative effect; it always stimulates the secretions of the kidneys and skin; the odor is quickly apparent in the secretions of kidneys and skin as well as in the feces.

The originator of the turpentine treatment of diphtheria is Bosse (Berl. Klin. Wochensch., No. 43, 1880) who stumbled upon it by accident. A boy, aged ten years, with such marked symptoms of laryngeal stenosis that a fatal termination was imminent, was given by mistake 12 grammes (three drams) of oil of turpentine, followed immediately upon discovery of the error by one-fourth litre (one-half pint) of milk. The child experienced no ill effects, but on the contrary, he grew quiet, respiration improved. In the morning the voice, though still hoarse, was audible, the te-

nacious deposit was loosened. Bosse tested the remedy by administering it in twenty-three cases of severe diphtheria, in children two to twelve years of age, in none of whom did a death occur.

Dr. Baruch cites also the testimony of several other clinicians, who report good or even astonishing results from turpentine.

Statistics with regard to six different methods of treatment practiced in the Oldenburg Hospital for children in St. Petersburg, viz., by the use of sublimate, iron, chinolin, resorcin, bromine, and turpentine, showed the most favorable results of all from the turpentine treatment.

Dr. Baruch discards and objects to the use of chlorate of potassium as being unavailable in the small doses ordinarily administered and injurious in large doses.

The chief points which he claims are emphasized by his clinical histories are:

1. The necessity for local applications in the nasal and laryngeal form and the inutility of these in most cases of the faucial variety.

2. The administration of large doses of iron to saturate the system instead of the small doses formerly resorted to.

3. The value of full doses of bichloride of mercury in the more severe types, especially in the laryngeal.

4. The value of large doses of oil of turpentine once a day in severe types.

5. The inutility of chlorate of potassium.

6. The advantage of administering our remedies in such form and rotation as to obtain their antiseptic effect in connection with their general effect.

CARDIAC MURMURS—WHAT ARE THEY AND WHAT DO THEY SIGNIFY?

At a meeting of the section in Practice of Medicine of the New York Academy of medicine, Nov, 15, 1887, Dr. H. N. Heine-

man read a paper entitled "What Constitutes a Cardiac Murmur?" which drew out quite an animated and valuable discussion which is reported in the *Medical Record*, of December 17.

Dr. Heineman defined a murmur as an adventitious or abnormal sound developed in the heart or blood vessels. The changes in the normal sounds of the heart, he said, were those of increased or diminished intensity and duplication, and they accompanied not only the normal sounds but pathological conditions, and almost imperceptibly one might be assumed for the other.

In the course of the discussion Dr. Francis Delafield said that there have been too many descriptions and too many explanations of cardiac murmurs. He thought it would be very satisfactory if we all could have the same conception of a cardiac murmur. It was not to be hoped or expected that all would give the same interpretation to what was heard; but he thought an agreement might be reached as to what we did hear, as to what should be called a heart murmur. To secure this he recommended not an increase but a limiting of the number of cardiac murmurs, and greater strictness as to what shall be called heart murmurs independent of lesions. Three points were to be determined; (1) whether the sound heard could be properly called a murmur independent of heart disease; (2) whether or not the person had anatomical heart disease; (3) what was likely to occur provided he had anatomical disease of the heart, for anatomical disease of the heart was perfectly well borne although not a good thing to have. He thought no sound should be called a murmur unless it was a new sound added to the normal sounds.

With regard to the significance of cardiac murmurs Dr. A. L. Loomis said that it seemed to him that the more one studied cardiac murmurs, the less reliance would be placed upon them as positive indications of any cardiac disease which prejudiced life seriously. He had felt for some time that the so-called endocardial friction murmurs, were not due to friction, but that all cardiac murmurs were due to vibrations within the blood current. From

which it was to be inferred that many such sounds heard in and about the heart had little, if any, pathological significance. He was convinced that the presence of a cardiac murmur in itself could never be accepted as a positive sign of cardiac disease, as the most serious lesions of the valvular orifices often existed without cardiac murmurs, while *per centra* murmurs frequently ceased while the lesions still persisted.

Where organic lesions were present, it was not so much the point of maximum intensity, or the area of diffusion, or any quality which they possessed which determined the significance of the murmurs caused, as the amount of cardiac dilatation and hypertrophy, or the absence of hypertrophy and excess of dilatation. The murmurs might wholly disappear when dilatation had reached the point of producing marked disturbance of the circulation.

Dr. A. H. Smith also thought the tendency had been to exaggerate the importance of cardiac murmurs *per se*, and held that the general condition of the patient and the evidence of imperfect circulation were the important aids in forming a prognosis.

Dr. S. S. Burt said he agreed in the main with Dr. Loomis, but he believed that some cardiac murmurs were so often associated with definite lesions that they were of great assistance in making a diagnosis, which should be made upon a consideration of the history and symptoms together with the condition of the cardiac muscles. If the murmur was due to vibrations in the blood current, and the loudness of the murmur depended upon the strength of the cardiac contraction, a loud murmur might indicate a strong heart. He had been accustomed to regard a diastolic whiff heard at the middle of the sternum as indicative of serious aortic disease.

Dr. Heineman, in closing the discussion, remarked that an important point to determine was, when we shall say that a given sound is an accentuation and when a murmur. He thought it would probably be necessary in solving the question to resort to the aid of the sphygmograph and other instruments of precision.

HYSTERECTOMY.

In a recent paper in the *Brit. Med. Journal*, Dec. 10, 1887, Dr. Thomas Keith after reviewing his experience in making this operation by different methods expresses his estimate of the operation as follows:

"I say it deliberately, hysterectomy is an operation that has done more harm than good, and its mortality is out of all proportion to the benefits received by the few. What is the mortality of this operation, now so often and so unnecessarily performed? We shall never know. I put it at 25 per cent, though it is probably much higher. * * * In other words, one out of every four women operated on by hysterectomy has till now died after an operation for the removal of a tumor that has, as a rule, a limited active existence, and that of itself rarely shortens life. We have no right to rush our patients into such a fearful risk, yet this is done every day. In abdominal surgery responsibility seems to have become old fashioned and gone out of date."

Farther on he speaks in terms of high commendation of the treatment introduced by Apostoli, which he says must take the precedence of all others, and renders of trifling import the questions as to detail of technique in performing hysterectomy which have heretofore caused so much discussion among surgeons. He speaks from personal experience concerning this also, in part at least, inasmuch as he had made application of electricity in strong, accurately measured doses more than 1,200 times, in over one hundred patients, most of them cases of uterine fibroid. Several patients who, when he returned from his summer vacation, were awaiting operation, either hysterectomy or removal of the ovaries, for hemorrhage accompanying fibroid tumors, had been treated by this method instead of by operation. All had gone home with menstruation almost normal, with the tumors in every case reduced in size, with pain gone, and with a freedom to walk about and enjoy life such as they had long been strangers to.

A STUDY ON TYPHOID FEVER.

M. F. Leclerc reports in *Lyon Médicale* Dec. 11, ten cases of typhoid fever treated with cold baths, with antipyrine and acetanilide. The number of blood corpuscles was counted at various times before, during and after the adoption of these different forms of treatment for the purpose of establishing, so far as so limited a number of cases can do, the action of these modes of treatment upon the corpuscles.

The following are the results obtained. Among the patients affected with grave typhoid fever two were treated exclusively with the cold bath. One of these was a young and vigorous man, and in this case the diminution of blood globules was insignificant. The woman who was the object of the other observation, was already a little aged and was affected with a particularly severe type of the fever. In her the loss of globules was quite considerable. In two other patients with whom the treatment by cold water was substituted after a time for that by drugs, a considerable destruction of globules was noted which commenced either at the time of the administration of the drugs or only during the application of Brand's method.

Antipyrine administered during eleven days in the dose of 4 to 8 grammes to one of these patients was not accompanied by deglobulization, but this supervened in the following days.

The other patient, who during eighteen days took only one to two grammes of acetanilide, underwent during that period a sensible loss of blood globules which was only increased afterward.

Among the typhoid fevers of moderate intensity one which was long and which was complicated with a relapse was treated solely by the cold bath. The deglobulization in this patient was very slight.

During the application of Brand's method in case No. IX there was considerable destruction of globules; but the treatment was commenced with acetanilide, the cold water being used only in the second place.

Antipyrine was given exclusively in two cases, and in them the loss of blood globules was slight. The same drug was administered after acetanilide to another patient in whom the process of diminution of globules was in full course and was not increased by the antipyrine.

Acetanilide was given to the same patient during seventeen days, at the commencement of the treatment and in the dose of two to three and a half grammes. There was produced during that period a very considerable diminution of globules.

A slight typhoid fever was treated with antipyrine exclusively and in this case the loss of globules was insignificant.

In summing up his conclusions the author says that excepting observation I. (that of the old woman with very severe form of fever) when the bold bath has been used exclusively the destruction of blood globules has been almost insignificant.

In has been slight in patients treated by antipyrine in the same conditions.

Deglobulization has always been more or less considerable in patients treated with acetanilide, except the case in which this medicament was administered only for three days. But the examination of the blood in the course of convalescence proves that the repair of the globules may occur very rapidly.

BOVINE SCARLATINA(?)

Some months ago, Dec. 1885, the attention of the Local Government Board was officially called to a sudden and extensive outbreak of scarlatina, which was associated with the distribution of milk by a particular dealer in South Marylebone. The source of supply was inquired into and it was pretty definitely and positively ascertained that the milk which caused the outbreak was derived from a certain dairy farm in Hendon, and Mr. Power was deputed by the Local Government Board to investigate the matter more

fully. Having become convinced that the milk had not been infected from any human source, Mr. Power proceeded to investigate the condition of the cows. Several cows on the farm were found to be suffering from a disease characterized by vesicles and ulcers on the teats and udders. Further observation convinced Mr. Power and Dr. Klein, who was associated with him in the investigation, that these cows were suffering from a constitutional disease capable of producing scarlet fever among human consumers of the cow's milk. Investigations by means of inoculation and by cultivation of bacteria obtained from the secretion of the ulcers seemed to these gentlemen to fully confirm the conclusions which they had reached, although these conclusions were questioned by others, who claimed that under their observation cows from the same herd as those upon the Hendon farm, and suffering from the same affection having been taken to another locality caused no trouble to the consumers of their milk.

Professor Edgar Crookshank having been assigned by the Agricultural Department of the Privy Council to make a further study of this subject, has given much time and labor to it, and has taken pains to follow out every clue that has come under his notice tracing the disease in animals and human beings; and in a preliminary paper read before the London Pathological Society he offers the profession the results thus far reached with his reasons therefor. He is thoroughly satisfied that the disease discovered upon the teats and udders of the cows upon the Hendon farm, instead of being a bovine scarlatina, is naught else than genuine Jennerian vaccinia, and that in the Hendon milk the source of infection was from some hitherto unascertained contamination from the disease in a human subject.

He is still pursuing a course of investigation as to bacteriological character of the virus. He makes the following remarks in the closing paragraphs of his paper as it appears in the *British Medical Journal*, Dec. 17, 1887: "If it be true that the same streptococcus may be found in diphtheria, erysipelas, puerperal fever, acute sup-

putation, scarlet fever, improperly preserved milk, and perhaps, too, in foot and mouth disease, there can be but little doubt that we have only to deal with a micro-organism, which when cultivated and inoculated in healthy animals, is capable of setting up a septic inflammation. Indeed, the *post mortem* appearances observed by Dr. Klein, point in my mind only to septic complication, which may equally occur in cow-pox, in scarlatina, and in other febrile diseases. I think that the explanation of this micrococcus being found occasionally in scarlatina is that in severe cases with ulcerated sore throat, the blood is unable to cope with the invasion of micrococci from the surface lesion. If this be so, the opinion which I wrote early in 1886, concerning the micrococci which had been described in measles, applies also to this micrococcus, namely, that in this and in many other cases I only described these organisms as distinct species from their association with particular diseases, not because they are believed to be causally related, for there is very little evidence in favor of that belief as yet, but purely for convenience of reference. In many cases they are probably only septic organisms which have found a pabulum in dead tissue; others appear to be identical with organisms which have been found in pus."

In the discussion which followed there was considerable difference of opinion among those present, Dr. Klein maintaining with others that Prof. Crookshank's argument was incomplete, and that while he had undoubtedly discovered an epidemic of true vaccinia, a discovery whose importance and value they fully appreciated, they were not convinced that he had demonstrated by any means that this was the same disease as that from which the cattle on the Hendon farm were suffering at the time of the scarlatina epidemic which was referred to the milk.

SEPTICEMIA IN GERMANY.—Dr. Koch in answer to a question of Dr. Senn as to the nature of septicemia, said that this disease is beyond the grasp of the pathologist in Germany, as antisepsis has succeeded in almost exterminating the disease in that country.

BOOK REVIEWS AND NOTICES.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS.
By ROBERTS BARTHOLOW, M. A., M. D., LL. D., etc. Sixth edition.
New York, D. Appleton & Co., 1887. 8vo., pp. 802; cloth, \$5.00. (St. Louis, J. H. Chambers & Co.).

No American writer for many years has exerted so potent an influence upon the profession in regard to the use of remedial agents as has Prof. Bartholow. His teaching is decidedly opposed to the therapeutic nihilism which prevailed for many years as the result of the influence of German teachers.

The present edition is thoroughly revised, and contains the most reliable information with regard to a number of remedial agents which have been brought to the notice of the profession since the publication of the preceding edition, such as antipyrin, antifebrin thalline, and even a mention is made of the observations which had been made with the so-called stenocarpin.

In all cases where the author gives the results of his own experience in the use of remedies we have come to place a very high estimate upon the teaching.

Dr. Bartholow's style is pleasing and concise, and his work in its new edition is an exceedingly valuable one.

INSANITY, ITS CLASSIFICATION, DIAGNOSIS AND TREATMENT. A Manual for Students and Practitioners of Medicine. By E. C. SPITZKA, M. D., President of the New York Neurological Society, Consulting Neurologist of the Northeastern Dispensary; Neurologist to the German. Poliklinik, etc. New York, E. B. Treat & Co., 8vo.; pp. 423; cloth, \$2.75. (St. Louis, J. H. Chambers & Co.).

A need of frequent reviews of the whole field of insanity and new compilations will in the nature of things exist for many years to come. Therefore a good work on insanity is always acceptable. Dr. Spitzka's book is entitled to a place in that category. It is up to date in all particulars, which fact will make it a satisfactory reference book for practitioners. At the same time it is compre-

hensive and compact enough to serve the purpose of a text-book. It has already gained a deserved popularity, and, although recently published, a second edition is demanded, a copy of which before us, that has been carefully looked into, forms the basis of the above opinion.

F. R. F.

FOUR MONTHS AMONG THE SURGEONS OF EUROPE. By N. SENN, M. D., Ph. D., of Milwaukee, Wis. Chicago: Reported from the Journal of the American Medical Association, 1887. 12mo.; pp. 157; paper. (St. Louis, J. H. Chambers & Co.).

This little volume consists of a series of letters written by Dr. Senn during a stay of four months in Europe, and addressed to his friend, Dr. Chr. Fenger. The letters are entertaining and profitable, containing a record of many interesting cases which he saw, and giving many pleasant personal details as to the men who are doing the greater part of surgical practice and surgical teaching in Europe.

DIFFERENTIAL DIAGNOSIS. A Manual of the Comparative Semeiology of the More Important Diseases. By F. DE HAVILLAND HALL, M. D. Third American edition. Thoroughly revised and greatly enlarged. Edited by FRANK WOODBURY, M. D., etc. Philadelphia, D. G. Brinton, 1887, 8vo., pp. 255, cloth. (St. Louis, J. H. Chambers & Co.).

This is an excellent manual for the student of medicine. While not so exhaustive a work as that of Da Costa, it contains in concise terms the points of differential diagnosis between all the more important diseases, and the arrangement in parallel columns makes it easy to study and compare one with the other. The present edition has been enlarged by the editor who has carried out the plan of the author but extended its application.

LOCAL ANESTHESIA in General Medicine and Surgery, Being the Practical Application of the Author's Recent Discoveries. By J. LEONARD CORNING, M. D., etc. New York: D. Appleton & Co., 1886. 8vo., pp. 103; cloth. (St. Louis, J. H. Chambers & Co.).

Dr. Corning has discovered that simply arresting the circulation of blood through a part after the injection of cocaine serves to prolong and intensify the anesthetic effect very markedly.

In this volume he describes the methods which he has found practically effective in the application of this discovery, and cites examples which have demonstrated, in his own practice and that of other surgeons, the possibility of performing quite extensive operations, even such as exsections of joints, with entire absence of

pain under his method of using cocaine in connection with the tourniquet.

It is an interesting brochure and a work of practical value to the surgeon and general practitioner.

OXYGEN AS A THERAPEUTIC AGENT. By P. D. ROTHWELL, M. D., Denver, Col. W. W. Rea, Denver, Col., 1887. 8vo.; pp. 73; paper, 50 cents.

This pamphlet is a reprint of a series of articles published in the *Denver Medical Times*, in which the author presents a summary of the present knowledge of the therapeutic value of oxygen and a report of his own experience in its use. He places a high value upon it in the treatment especially of diseases of the respiratory organs.

A MANUAL OF ORGANIC MATERIA MEDICA. By JOHN M. MAISCH, Phar. D. Third edition. With two hundred and fifty-seven illustrations. Philadelphia. Lea Brothers & Co., 1887. 12mo., pp. 532, cloth, \$3.00. (St. Louis, J. H. Chambers & Co.; J. L. Boland.)

This third edition of Prof. Maisch's work has been carefully revised, and is somewhat enlarged. All the descriptions are clear and concise, and for their accuracy Prof. Maisch's reputation is sufficient guarantee. The work is written from the standpoint of the pharmacist rather than that of the physician, and comparatively little space is assigned to a consideration of the therapeutical action of the various agents described. The volume is therefore of relatively greater value to the pharmacist than to the physician.

A COMPLETE HANDBOOK OF TREATMENT, arranged as an Alphabetical Index of Diseases. By WM. AITKIN, M. D. Edited with notes and additions by A. D. ROCKWELL, A. M., M. D., etc. New York. E. B. Treat, 1887, Small 8vo., pp. 444, cloth. (St. Louis, J. H. Chambers & Co.)

This volume consists of the chapters on treatment taken from the last edition of Dr. Aitkin's "Science and Practice of Medicine," arranged alphabetically for greater convenience in reference. It lacks to some extent the system which might be demanded of a work specially written on therapeutics. It seems to us that there are better works for the American student and practitioner than this, though in many things this one is excellent.

TRANSACTIONS OF THE MEDICAL AND SURGICAL FACULTY OF THE STATE OF MARYLAND. Eighty-ninth annual session, held at Baltimore, Md., April, 1887, 8vo., pp. 152, paper.

The most valuable paper in this volume is the annual address,

given by Prof. Wm. Welch, his subject being, "Modes of Infection." We seldom find in volumes of transactions in medical journals, or even in more pretentious publications, a paper so thoroughly logical and conclusive in its arguments or so convincing in its conclusion as this. Prof. Welch honored the society and did himself great credit in presenting such a paper.

The other papers are, most of them, brief, and not of any great value. The volume is well printed and notably free from typographical inaccuracies.

THE STUDENTS' GUIDE TO DISEASES OF THE EYE, by EDWARD NETTLESHIP, F. R. C. S., etc. Third American from the Fourth English edition. With 175 Illustrations. Philadelphia, Lea Brothers & Co., 1887. Royal 12mo., pp. 475, cloth, \$2.00. (St. Louis, J. L. Boland.; J.H. Chambers & Co.).

On the appearance of former editions of this work we have had occasion to commend it to the notice of our readers, and the present edition is an improvement on those which have preceded. The additions have increased the size of the book some sixty pages, and are to be found all through the work, the most extensive one being a detailed account of retinoscopy which the author values highly.

The illustrations of this edition are more numerous, and the printing is more satisfactory than in the former edition.

SYPHILIS. By JONATHAN HUTCHINSON, F.R.S., etc. With eight Chromo-lithographs. Philadelphia. Lea Brothers & Co., 16mo., pp. 532; cloth. (St. Louis, J. H. Chambers & Co.).

No other writer of English is better qualified than is Mr. Hutchinson to treat the subject of this monograph. A wide experience of the disease extending through many years with the most favorable opportunities for observation have given him inexhaustible material from which to draw, while his habits of careful study and his ability as a writer give to his a work weight of authority which would scarcely be accorded to that of any other of whom we know.

The volume is divided into two parts entitled respectively "General Statements" and "Clinical Commentaries and Illustrative Cases." In the first part he discusses the subject under six chapters, describing the several groups of symptoms, the treatment in general, and the laws of heredity in syphilis. In the second part he comments on the various topics presented in the first part, and illustrates his views by reports of clinical cases. The first part pre-

sents in a condensed form general principles of diagnosis and treatment, while the second part presents arguments and illustrations.

Several of the concluding chapters of the volume are devoted to a discussion of some of the yet unsettled questions concerning syphilis.

As to the question of marriage after syphilis, Mr. Hutchinson states that for twenty years his practice has been to sanction the marriage of a patient two years after the date of infection when the patient has undergone thorough mercurial treatment. Of course he does not grant such sanction in cases where symptoms persist.

The volume is one which will be read with interest and profit by the practical physician and surgeon, as giving the views and practice of one among those best qualified to discuss the subject.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Sterility, by P. Mueller, M. D., and the Menopause, by E. Boerner, M. D., edited by E. H. Grandin, M. D., New York, Wm. Wood & Co., 1887, 8vo., pp. 383, cloth.—Diseases of the Ovaries, by Dr. R. Olshausen, edited by E. H. Grandin, New York, Wm. Wood & Co., 1887, 8vo., pp. 414, cloth.—Gynecological Diagnosis, by R. Chrobak, M. D., and Electricity in Gynecology and Obstetrics, by E. H. Grandin, New York, Wm. Wood & Co., 1887, 8vo., pp. 390, cloth.—Diseases of the Tubes, etc., by L. Bandl, M. D., and Diseases of the External Female Genitals, by P. Zweifel, M. D., edited by E. H. Grandin, M. D., New York, Wm. Wood & Co., 1887, 8vo., pp. 366, cloth.—Text-Book of Therapeutics and Materia Medica, intended for the use of Students and Practitioners, by Robert T. Edes, A. B., M. D., etc. Philadelphia, Lea Brothers & Co., 1887, 8vo., pp. 552; cloth, \$3.50, sheep, \$4.00. (St. Louis, J. L. Boland.)—Materia Medica and Therapeutics, by Robert Bartholow, M. A., M. D., LL. D., etc. Sixth edition, revised and enlarged, New York, D. Appleton & Co., 1887, 8vo., pp. 802; cloth, \$5.00.—Anatomy, Descriptive and Surgical, by Henry Clay, M. D., etc. Revised by Pickering Pick, M. D., etc. A New American from the eleventh English edition. Revised by W. W. Keen, M. D., etc., Philadelphia, Lea Brothers & Co., 1887, Royal 8vo., pp. 1100, sheep.—Annual Report of the Supervising Surgeon-General of the M. H. S. of the U. S. for the fiscal year 1887, 8vo., pp. 308, paper.—Medical Jurisprudence, by Allen McLane Hamilton, M. D., with illustrations, New York, E. B. Treat, 1887, 8vo., pp. 380, cloth, \$2.75.—Diseases of Women, by W. H. Byford, M. D., and Henry T. Byford, M. D., Philadelphia, P. Blakiston, Son & Co., 1888, 8vo., pp. 820, half morocco, cloth, \$5, leather, \$6. (J. L. Boland, St. Louis.)

PAMPHLETS AND REPRINTS.—Report on Progress in Medicine, by J. B. Marvin, M. D. (S. W. Med. Gaz.)—Progressive Muscular Atrophy beginning in the Legs, by J. B. Marvin, M. D. (Prac. and News.)—Ueber den einfluss des Kochsalz und Glauber Salzhaltigen Mineralwassers auf einige Factoren des Stoffwechsels, von Dr. B. London, Karlsbad, Wien, 1888.—Third annual Report of the Managers and Superintendent of the North Texas Asylum for the Insane, at Terrell, for the year ending Oct. 31, '87.—A Study of the Causes and Treatment of Uterine Displacements, by Thomas Addis Emmet, M. D., New York. (Vol. XII of the Gynecological Transactions, 1887.)—Wounds, their Aseptic and Antiseptic Management, by David Prince, M. D.—Radical Treatment of Trachoma, by A. E. Prince, M. D. (St. L. Courier of Medicine.)—Case of Gastrostomy for Cancer of the Esophagus, by J. Collins Warren. (Med. Record, Nov. 5, '87.—De las Fracturas del Craneo y de Trepanacion. Estudio Clinico por el Dr. D. Enrique de Areilza. Barcelona, 1887. 8vo., pp. 78, paper.—Observations on the Cholera Bacillus as a Means of Positive Diagnosis, by S. T. Armstrong, M. D., and J. J. Kinyoun, M. D. (New York Med. Jour., Nov. 12, '87.)—Statistical Report of 5700 Cases of Ear Diseases, by S. S. Bishop, M. D. Jour. Am. Med. Ass'n.)—Operations of Mastoid Disease, by Seth S. Bishop, M. D. (Am. Jour. Med. Ass'n.)—Treatment of Chronic Suppurative Otitis Media, by Seth S. Bishop, M. D. (Jour. Am. Med. Ass'n.)

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.—A meeting for permanent organization was held in Birmingham, Alabama, October 12, pursuant to a call by the Alabama Surgical and Gynecological Association and was prompted by the many urgent requests of the most prominent physicians in the South, that the Alabama Association would extend its membership so as to include all the Southern States.

The Constitution and By-Laws differ from the State organization only in some minor particulars, made necessary by the enlarged scope of the new organization. The Association includes all the Southern States, and its meetings will be held on the second Tuesday of September of each year at such places as may be selected by the Association.

The following officers were elected:—President; Dr. W. D. Haggard, of Nashville, Tenn; Vice-Presidents, Drs. R. D. Webb and J. W. Sears, both of Birmingham; Secretary, Dr. W. E. B. Davis of Birmingham; Treasurer, Dr. H. P. Cochrane, of Birmingham.

Judicial Council, Dr. Jno. S. Cain, Nashville, Tenn; Dr. Hunter McGuire, Richmond, Va.; Dr. J. M. Taylor, Corinth, Miss.; Dr. DeSaussure Ford, Augusta, Ga.; Dr. R. A. Kinloch, Charleston, S. C. The next annual session will be held in Birmingham, Ala.

REPORTS ON PROGRESS.

DISEASES OF THE NERVOUS SYSTEM.

FRANK R. FRY, A. M., M. D.

Aphasia and Hemiplegia without Paralysis of the Laryngeal Muscles.—This subject was discussed at a recent meeting of the New York Neurological Society. Dr. M. Allen Starr said he had been much interested in the subject. During the past year he had sixteen cases of hemiplegia examined without the discovery of any affection on either side of the larynx. In his opinion it is contrary to the general experience of neurologists to find any difficulty of phonation connected with aphasia.

Dr. Beverly Robinson made the statement, in answer to a question from Dr. Starr, that a patient could have a partial paralysis of a vocal chord without being hoarse.

Dr. L. Carter Gray said that it is important in this connection to make a distinction of lesions of the internal capsule from those of other parts, *e. g.*, the pons and medulla. Six or seven cases of hemiplegia due to lesions of the internal capsule were examined under Dr. Gray's directions by competent laryngologists. In none of them was there paralysis of the laryngeal muscles. In hemiplegia from other causes he had noticed changed tone of voice. But in true simple aphasia he thought the voice was not affected.

Dr. Ross in the last edition of his work on diseases of the nervous system makes the general statement that in the lesion of aphasia, the muscles of the larynx are not affected.

Multiple Neuritis, Poliomyelitis, etc.—The past year has produced a rapidly increasing amount of literature on multiple neuritis, called also diffused and peripheral neuritis. By the way, we notice that these terms are used interchangeably by most writers and speakers. We believe that recommendations from some prominent authority as to an appropriate use and limitation of some or all of

them would be timely, and the possible means of saving present and future confusion.

This subject of peripheral neuritis has of late engaged the attention of neurologists to no small extent. During the last year interest has not abated. The general profession is also beginning to partake of it to a greater extent, as it learns the importance of the matter, and that often what were formerly taken for central troubles of the nervous system are in fact peripheral. In the light of a neuritis theory many cases of motor, sensory and trophic disturbances are studied with a keener interest than would otherwise be the case. The differential diagnosis is often by no means easy. Sometimes it is impossible during the life of the patient. The reporter has gathered from various sources a few opinions and statements bearing on this particular point from persons of recognized authority, believing that they will be not only interesting but valuable to read.

Dr. C.L. Dana, New York.—I have seen cases of multiple neuritis due to alcohol. I believe that alcoholic paralysis is multiple neuritis. Certainly, that is almost the rule, without question. In these cases of alcoholic paralysis, we find the greatest variety of symptoms, and I have reached the conclusion that it is impossible from objective symptoms to make a diagnosis of multiple neuritis. I place much more reliance upon the fact that multiple neuritis is caused by toxic influences. In alcoholic neuritis, we find neuritis alone, and in myelitis we find evidences of myelitis alone; and in a few cases these have been found associated, but these cases are rare.

Dr. James H. Lloyd, Philadelphia.—In a somewhat large experience in nervous diseases at the University Hospital, I have attempted to make a differential diagnosis between poliomyelitis and multiple neuritis by means of electricity. I would not draw the conclusions too definitely or precisely, but it has seemed to me that, in some cases at least, there is this distinction, which I throw out merely as a suggestion. In neuritis we get more readily the typical reaction of degeneration than in poliomyelitis; especially loss of faradic reaction in the nerve trunk, and degeneration reaction to the galvanic current in the affected muscles.

Dr. F. T. Miles, Baltimore.—In some cases I have seen it has been difficult to say at what particular point the nerve was affected, and where there did not seem to be any atrophy of the muscle or

reaction of degeneration, or at least it did not come on as soon as in other cases. Pain on pressure along a nerve trunk is a very variable symptom in neuritis. There are cases in which we cannot make the diagnosis between central and peripheral paralysis. The best points in these cases are that if we have paralysis of the muscles with atrophy and degeneration reaction, with loss of sensation, it is most probably neuritis; if we have sensation entirely preserved it would look like a case of central trouble.

Dr. M. Allen Starr, New York.—I do not think I can say I have seen any case of poliomyelitis anterior in which the affected muscles were absolutely symmetrically affected on both sides of the body; one leg will be more involved than the other. A few muscles will be affected on one leg which are not affected on the other; and on one side the muscles will recover more than on the other. This is not the case with multiple neuritis, where the affection is markedly symmetrical. I do not believe that it is policy to call all cases of recovery cases of neuritis, for there are undoubtedly cases of poliomyelitis of a mild type which recover entirely. Neuritis is not always favorable in its course, although the prognosis is better than in poliomyelitis.

It is a fallacy also to say that a gradual onset always means neuritis, for in some cases of neuritis the onset is sudden, *e. g.*, alcoholic and lead cases, and in some cases of infantile paralysis the onset is subacute. It seems to me that pain and tenderness are very important points in making a diagnosis. If there is pain and tenderness, not only along the trunk of the nerve, but in the muscles—and in many cases the tenderness is very marked, and both sides are about equally involved—it is a case of neuritis; for these are not present, or are very rare, in cases of poliomyelitis. I have just made an autopsy in a case of lead palsy in which the gross appearances were sufficient to make it a case of neuritis, but on microscopical examination there was no marked change.

Dr. E. C. Spitzka, New York.—Within four or five months I have seen three cases like one reported by Kast in the *Deutsches Archiv f. Klinische Medizin*. All the symptoms so accurately aped an acute bulbar paralysis that that diagnosis was made. The patient dying, a careful search was made for cerebral lesion, and none found; the brain, medulla and pons were absolutely healthy. There was intense neuritis of the nerve trunks whose function had been disturbed.

In my mind there is no doubt that there has been an extreme tendency to enlarge the domain of peripheral neuritis, attributing obscure disturbances of nerve function to neuritis on the fallacious theory of curability and non-curability. There are fatal cases of neuritis and curable cases of myelitis.

With regard to post-diphtheritic neuritides, I would add that it seems to be accepted that they prove the diphtheritic nature of what clinically appeared as a simple angina. It must be remembered, however, that such neuritis has been recorded as following mumps.

Dr. C. K. Mills, Philadelphia.—I am convinced, from a large experience, especially in the Philadelphia Hospital, that poliomyelitis does begin with sensory symptoms; or I believe that the truth is that the cord has been attacked by a more general process which becomes limited in a short time to the horns.

Dr. J. S. Putnam, Boston.—With regard to the connection between multiple neuritis and affections of the anterior cornua of the spinal cord, I have seen cases which have been pronounced to be poliomyelitis which really were of neuritic origin. I had opportunity to make a post-mortem examination in a case where the pain was intense, came on suddenly with paralysis, and although the nerves were not examined at the autopsy, I concede that they were practically affected, and the spinal cord was the seat of an inflammatory process from one end to the other, confined chiefly to the anterior columns.

I have seen a case where the symptoms were absolutely typical of multiple neuritis, when the cord was examined and appeared to be healthy, but the brain contained a number of points of softening.

Oswald in a recent number of the *Archives of Psychiatry* speaks of neuritis due to lead confining itself to the motor elements of the peripheral nerves and that the spinal cord is sometimes involved, and that the tunics are affected when no absolute lesion is present in the cord and that possibly and primarily these disturbances of the tunics cause the nerves to suffer.

Several cases have been reported where the knee-jerk was exaggerated in peripheral neuritis, and I can add one or two cases. A case of this kind will be found reported in the *COURIER* of August 1887, p. 126, by Dr. C. H. Starkel, of Belleville, Ill., and was seen in consultation by the reporter. Whether this exaggeration of the

knee-jerk implies a process in the cord is uncertain. It may be only part of the general condition of hyper-irritability of the nervous system. But the possible error of adopting this as anything like a pathognomonic sign should be borne in mind.

Dr. James Ross, England, (author of the hand-book on diseases of the nervous system.)—The symmetrical manner in which the disease usually attacks the body shows that at least in the majority of cases it is produced by some poison in the blood. Thus salts of lead, arsenic and probably of copper and other metals are capable of giving rise to it. In a second group of cases the disease is caused by alcoholic excess, the fumes of bisulphide and oxide of carbon, and probably by the abuse of chloral or chloroform. It has also been observed in advanced diabetes. A third variety arises from animal poison. Diphtheritic paralysis is the best known instance of this. It is also to be observed in syphilis, small-pox, scarlet fever, measles, typhoid, typhus, intermittent fever, dengue, (post-febrile neuritis), tuberculosis, leprosy and beri-beri. It is probable that it may be caused by rheumatism, and that the wasting of the extensors seen in chronic rheumatoid arthritis is due to a neuritis of the neighboring nerves. There is also an idiopathic multiple neuritis. The symptoms consist in more or less widely distributed atrophic paralysis. The condition of the cutaneous reflexes varies. With a very few exceptions, the patellar reflex has been wanting in all recently reported cases of alcoholic, diphtheritic and other forms of neuritis of the lower extremities. The knee-jerk is sometimes absent in lead poisoning, even when the muscles of the lower extremities are not appreciably involved. Yet the failure of the patellar reflex is valuable but not an absolute sign of neuritis. The electric test affords conclusive evidence in the majority of cases. The paralysis affects especially the extensors, as will be seen in the wrist drop of lead palsy. That following alcohol, bisulphide of carbon, the animal poisons, and even arsenic, usually attacks the lower extremities first.

SURGERY.

Remarkable Bullet Wound of the Pelvis.—DR. HENRY HABGOOD reports a remarkable case of bullet wound which came under his care at the Princess Alice Memorial Hospital.

The patient was a man, 21 years old, who while searching on the sand for a missing pipe, inadvertently wandered within the line of the danger flags placed behind the rifle butts when the volunteers were practising with the Martini-Henry carbine. He was about 600 yards from the firing party in a line with the butts and at the bottom of a slight declivity and therefore out of sight of the marksmen.

While stooping down with his back to the butts and his left hand in his trousers pocket, he was struck by a bullet in the right buttock, three inches to the right of the anus and an inch and a half to the rear of it.

The bullet passed through the great sacro-sciatic notch, through the rectum at a point about three inches from the anus, then beneath the posterior part of the bladder, and finally out of the pelvis through the obturator foramen of the opposite side, emerging through the skin at a point one-quarter of an inch to the inner side of the femoral artery: It then passed through the ball of the left thumb, opening the metacarpo-phalangeal joint, thence through the metacarpo-phalangeal joint of the middle finger, the bones of which joint were considerably comminuted and the soft structures badly lacerated. Hemorrhage had not been copious.

On examination under ether a finger in the rectum detected two large wounds in its walls about three inches from the anus, and another finger passed through the wound in the groin and down through the obturator foramen easily met the finger in the rectum. There was no escape of urine or fecal matter by either wound. A large soft catheter was passed through the anterior pelvic wound and obturator foramen as far as it would go, and the track of the bullet was washed out with a 1 to 1,000 perchloride of mercury solution. No drainage tube was left in, as it was thought that the posterior wound would drain itself, and the anterior wound would drain into the rectum. A pad of iodoform wool was placed over each wound, and the patient was placed on his back with his knees bent and supported on pillows.

In spite of the severity of the injury and some complications, such as an attack of orchitis, the patient made a good recovery, and left the hospital after forty days, quite well, having fairly good use of his thumb and complete control over his bowels. The size of the fecal masses which he passed, though smaller than usual showed no sign of a tendency to farther diminution.—*Brit. Med. Jour.* Dec. 10, 1887.

Arsenic Cancer.—Mr. JONATHAN HUTCHINSON holds that the internal administration of arsenic in large doses over long periods might produce a form of cancer of the epithelial variety.—*Brit. Med. Jour.* Dec. 10, 1887.

The Surgical Treatment of Chronic Follicular Pharyngitis.—R. HARVEY REED defines chronic follicular pharyngitis as a chronic inflammation of the mucous membrane of the pharynx, involving the glandular structures, which become enlarged into papules, varying from the size of a pin head to that of a split pea, among which will be found winding numerous varicose veins, on a bluish or yellowish red back-ground of diseased mucous membrane. This disease is that known as "clergymen's sore throat," chronic lymphadenitis, or granular sore throat.

Its *diagnosis* is easy and simple, and can often be made with the naked eye, and if not, is readily determined with the aid of the laryngoscope, when a number of shiny or pearly looking follicles will be found studded over the pharynx, among which will be seen a network of enlarged veins, winding over a dull bluish or yellowish-red mucous membrane, which at times looks dry and glistening, as if covered with a thin coat of varnish. You will often find these follicles and veins invisible until after you have carefully mopped off the accumulated mucus with a swab, when this disease can be readily distinguished from ulcerous coryza, adenoid vegetations, or mucous polypi. In the former, there is ozena, and a discharge of pus with a peculiar "crushed bed-bug" odor. In the second, if they cannot be distinguished by the unaided eye, or by digital examination, the rhinoscope will readily aid you in distinguishing between the follicular enlargement on the one hand and the vegetating growths on the other.

The simpler forms of this disease are apt to be neglected, and patients are hard to convince of the importance of treatment, until they have contracted some complications, and apply for relief from deafness, chronic hypertrophy of the nasal membranes, or a continued, dry, hacking cough, which provokes their attention, and often, until told by the physician or surgeon that they have a chronic sore throat, seem to be wholly unaware of it, except to remember that they did have occasional attacks of sore throat, at which time the complication they complain of grew worse.

Dr. R. has seen patients who have lain awake at night, coughing

from the effects of these follicles acting as an irritant to the pneumogastric nerve, until from the loss of sleep, they have become feverish, lost their appetites, become anemic and emaciated, while the constant strain from coughing on the lung itself and bronchial tubes has really developed a form of lung trouble that was alarming. On the other hand, he has seen the same patients cease coughing often in a few days, on splitting open these follicles, one by one, with a sharp bistoury, and applying a saturated glycerine solution of carbolic acid, repeating the application of the carbolic acid every second or third day, until every vestige of the follicular enlargements had disappeared. After this, milder applications with the spray will suffice until the mucous membrane of the pharynx regains its normal condition.

He does not say that when patients have tubercular phthisis, followed with a chronic follicular pharyngitis, the treatment of these follicles will cure them; it will often give great relief, but will not cure them. But an irritation of the lungs induced by a continued reflex cough, caused by these follicles, which, if allowed to go on, will, and often does, result seriously, will get prompt and permanent relief if properly treated.

After the follicles have been destroyed, any soothing application may be used advantageously; but he prefers a solution of borax with water of thyme, or eucalyptus, and a small percentage of carbolic acid, and sufficient distilled water to suit the case. In other cases, insufflations of powdered iodoform, or the impalpable powder of boracic acid, will give good results when the spray will fail.

If the varicose veins do not subside, and the mucous membrane still continues thick, it should be thoroughly mopped off with the tr.iodinii comp. once or twice a week, and followed with the milder applications above mentioned, keeping close watch for any new formation of follicles, which should be cared for at once, if they appear, by either cauterizing them with carbolic acid, or by laying them open with the bistoury and then cauterizing them.

In many of these cases, the uvula will be found very much elongated, and streaked with varicose veins, which complicate the trouble, and seem to keep up such an amount of irritation that amputation of a portion or all of it becomes necessary, and should be done promptly.

In a number of cases, a chronic enlargement of the tonsils, with

chronic inflammation of the secretory ducts, is the source of a continuation of the follicular disease of the pharynx, especially when there is marked chronic inflammation of the ducts, which often occurs without much enlargement of the tonsil proper. The ducts of the tonsil are sometimes so diseased that one can pass a probe the size of a small rye straw a quarter, and sometimes half an inch into them, removing at the same time a cheesy secretion, which is very offensive in the extreme to the olfactory nerves. Local applications to these ducts are not of any permanent benefit, and such treatment is a mere waste of time and a useless expense to the patient. The cutting off a slice of these "honey-combed" tonsils will seldom result in any permanent benefit, and usually requires a second operation. As long as any part of these diseased ducts is allowed to remain in them, they keep up their persistent irritation to the pharynx.

The removal of either the uvula or the tonsils can easily be done, and with little or no pain to the patient, by the use of cocaine. They soon get well, and the previously obstinate mucous membrane of the pharynx will be found speedily yielding to treatment.

The intimate relation of the pharynx with the pituitary membrane is such that a chronic inflammation of the latter will keep up the same in the former.

Although the glands of the Schneiderian membrane are small and the follicles in a normal state very difficult to observe, yet they do occasionally become enlarged, and require treatment, and must either be destroyed by cauterization with some chemical, (I prefer carbolic acid) or removed with the thermo-cautery, and until the mucous membranes of the nasal passages is got into a healthy condition, you cannot expect to get a permanent cure of the trouble in the pharynx.

As in the treatment of the mucous membrane of the pharynx, after the follicles are removed, the use of mild remedies with the spray, or in the form of powders, will be found to give the best results in the treatment of the pituitary membrane.—*Columb. Med. Jour.* Aug. 8, 1887.

Fatal Tonsillar Hemorrhage.—DR. J. N. HALL reports a case of a cow-boy twenty-six years of age who two weeks before had had a severe attack of quinsy, and following evacuation of a tonsillar ab

cess had had a profuse hemorrhage. Slight hemorrhage had recurred several times. Tincture of chloride of iron and fluid extract of ergot were prescribed internally. Two days later feeling better, and no hemorrhage having taken place for several days, he returned to the ranch where he was employed, about forty miles from town. Two days later he returned reporting three severe hemorrhages, and being very pale and anemic. In Dr. Hall's absence Dr. C. S. Stone saw the patient and found the hemorrhage to come from an abscess cavity in the right tonsil. He applied styptics, and no hemorrhage recurred for ten hours. The patient was instructed to apply pressure with the finger in case of a recurrence of the hemorrhage. At 10 P. M., and at midnight the hemorrhage recurred but was controlled by pressure with the finger before arrival of physicians. They then applied sub-sulphate of iron to the interior of the cavity. The doctor estimated that twenty ounces of blood were lost at each hemorrhage. The pulse at the wrist was indistinguishable, extremities cold, and heart's action very feeble, 150 per minute.

The left tonsil was now greatly swollen and a little matter was evacuated with an exploring needle. Two days later a decomposing clot as large as a hen's egg, was coughed from the throat, and the tonsil returned to nearly its natural size. For eleven days the patient improved and was considered out of danger, having been on the street daily for a week. But at this time the doctor was summoned to go at once to a very sick patient only a hundred and sixty-five feet distant. He responded at once, and on reaching the place found this patient lying on the floor moribund, the blood pouring from mouth and nostrils in a full stream; but this ceased and the patient was dead in a few seconds after his arrival.

No post-mortem was obtained. He believes that death resulted from the rupture of an aneurismal dilatation of the internal carotid artery, the aneurism depending upon a weakening of the walls of the artery by ulceration in and following the tonsillitis.—*Bost. Med. and Surg. Jour.* Dec. 22, 1887.

Contusion of the Abdomen with Rupture of the Intestine.—The Cartwright prize of the Alumni Association of the College of Physicians and Surgeons, of New York was awarded to DR. B. FARQUHAR CURTIS, for an essay in which he sets forth in detail the ac-

count of a series of forty-four experiments upon dogs for the purpose of throwing some light upon doubtful questions concerning the mechanics of rupture of the gut, and at the same time giving an analysis of one hundred and sixteen cases of rupture of the intestine and of thirty-three cases of contusion of the abdomen terminating in recovery.

The conclusions reached are as follows:

1. The treatment of contusion of the abdomen should be purely expectant in the early stage until symptoms of internal injury have appeared, or until the full extent of time in which they may be expected has passed. Explorative laparotomy at this time is inadmissible.

2. When symptoms of uncontrollable internal hemorrhage, or serious visceral injury appear, laparotomy is indicated; but, when the diagnosis is uncertain, the operation should always be begun as an exploration.

3. Great collapse is an absolute contraindication to all operative interference.

4. When rupture of the intestine is found, the best method of treatment is to secure the injured gut in the abdominal wound, and form an artificial anus. This can be easily relieved by a later operation, when the patient has recovered his strength.—*Am. Jour. of the Med. Sci.* Oct. 1887.

Subcutaneous Osteotomy in Contracted Pelves.—DR. MACEWEN suggests the substitution of subcutaneous osteotomy for abdominal section in cases of greatly contracted pelves. He claims to have demonstrated that section of the pubic bone an inch and a half or two inches from the symphysis pubis and section of the ascending rami of the ischia, would add one and one-half inches to the antero-posterior diameter of the pelvis and that in case more room is required, the ilium could be divided on each side. The operation has never been performed yet upon the living subject, but Prof. MacEwen holds himself ready to perform the operation at any time when called upon.—*Jour. Am. Med. Asso.*

Extraordinary Anal Fistula.—DR. T. G. MORTON reports a case of fistula in ano, the upper end of which entered the bowel about a half inch above the external sphincter, while the lower end opened upon the posterior aspect of the thigh below its middle. It was laid open in its whole extent, the dense tissue lining the track was

removed with the curette, the wound was closed with deep sutures and the whole wound united promptly as if it were an incised wound.—*Med. Register*. Nov. 26, 1887.

Application for Warts.—M. E. VIDAL recommend the following:

R. Acidi salicylici, - - - -	1 gramm.
Alcohol (90 %) - - - -	1. "
Etheris sulphurici, - - - -	2. 5 "
Collodion - - - -	5. "

M. Paint the warts daily.—*L'Union Med.* Oct. 22.

One-Hundred Cases of Operation for Stone in the Bladder without a Death.—DR. P. J. FREYER reports a series of one hundred cases of operation for stone in the bladder without one death. All the patients were males.

Amongst these operations there were:

Litholapaxies in adults - - - -	61
Litholapaxies in children - - - -	16
Lithotomies in children - - - -	22
Suprapubic cystotomy in an adult - - - -	1

100

The ages of the sixteen children on whom litholapaxy was performed varied from $3\frac{1}{2}$ to 15 years. In those upon whom lithotomy was performed he ascertained by measurement of the urethra that his smaller lithotrite would not pass before he proceeded with the other operation. He believes that with smaller instruments, which he has ordered, a much larger proportion of cases among children will prove amenable to treatment by litholapaxy.

The average age of the 62 adults was 44, and the average weight of the calculi 197 grains.

In all cases the calculus was removed at one sitting to which fact Dr. Freyer largely attributes his success. He states that he now crushes much more of the stone at each introduction of the lithotrite than in his earlier cases, so that in calculi of moderate size the whole is pulverized, as a rule, before the instrument is withdrawn. Three cases were complicated with stricture of the urethra, and several with enlargement of the prostate.

The case of suprapubic lithotomy was that of a Hindu male, aged 16 years, who had suffered from stone for probably three or four years. Micturition was extremely painful, and the urine was

mixed with pus and blood. Patient was extremely thin and weak, so that he could not even stand up, and was suffering from diarrhea and fever. At the neck of the bladder the sound struck what seemed to be a large phosphatic stone, but by no manipulation could the sound be passed into the bladder. The patient was rickety, with a narrow, deformed pelvis, and it was deemed advisable in view of all the local conditions to practice suprapubic lithotomy, which, after a couple of week's preliminary treatment was successfully done.—*Brit. Med. Jour.* Dec 24, 1887.

Litholapaxy in Children.—DR. P. J. FREYER remarks as the result of his observation on this operation in children:

(1.) That the capacity of the urethra in patients of the same age varies much more in children than in adults.

(2.) That when the urethra in children is capacious, litholapaxy may be performed with facility and safety. But the operation is necessarily a much more delicate one than in the adult.

(3.) In children the operation is, for the same size of stone, a much more tedious one than in the adult, owing to the small size of the instrument used and the consequent necessity to grind the calculus into very fine débris before it will pass through the cannula.

(4.) There is more danger of a fragment of stone being left behind than in the adult. The stream passing through the small cannulæ used has not the same force as in the large cannulæ employed in the adult. The fragments are not, therefore, carried with the same certainly toward the eye of the cannula from the various parts of the bladder, and do not give out the diagnostic clicking sound so clearly. It is, therefore, necessary to institute a very careful search by pumping in water and exhausting it with the eye of the cannula turned in different directions before the instruments are finally withdrawn.

(5.) He finds that in children, after the meatus has been cut, the first two inches of the urethra is, as a rule, the narrowest and most difficult part through which to pass the lithotrite, whereas in adults the difficulty, when one occurs, lies generally at the triangular ligament.

(6.) When the instruments are a tight fit for the urethra at first, and there is occasion to introduce them more than once during the operation, there may be some difficulty in the reintroduc-

tion, owing to the congestion which takes place in the urethral mucous membrane near the meatus.

(7.) He has frequently found a difficulty, or even an impossibility of introducing a No. 7 or 8 lithotrite in a child, when a No. 9 or 10 polished steel sound or cannula passed with ease. This is owing to the curve of the instrument, that of the lithotrite approaching more nearly a right angle than that of the others. He has also thought that the child's penis is more bound down to the pubic arch than is that of the adult, so that it less fully accommodates itself to the curve of the instrument as it is introduced.

(8.) The meatus in children is extremely small and almost invariably requires to be slightly slit before passing the instruments. The slit should be in the floor.—*Brit. Med. Jour.* Dec. 24, 1887.

Electrolysis in Lachrymal Obstruction.—DR. W. E. STEAVENSON and W. H. JESSOP call attention to a new treatment for obstruction of the lachrymal passages. By a simple adaptation of the method of treatment which has been so successfully used for urethral stricture during the last few years, these gentlemen have obtained results in the treatment of lachrymal obstruction very much more satisfactory than have been reached by the common method, by astringents use of styles, probes, etc.—*Brit. Med. Jour.*, Dec. 24, 1887.

In all the ten cases reported the obstruction was situated at the punctum or in the canaliculus, but there seems to be no reason why the treatment may not be used with complete success in cases where the trouble is more deeply seated, though in these cases there would be the same necessity for slitting the canaliculi in order to introduce the electrode into the sac and lachrymal duct that exists when the treatment by styles or probes is used.

MEDICINE.

The Cholera Bacillus as a Means of Positive Diagnosis.—DRS. S. T. ARMSTRONG and J. J. KENYOUN had the opportunity of making plate and tube cultivations of material taken from the excreta of several patients taken from the Alesia and Britannia while held in quarantine at Swinburne Island, and also of material taken directly from the intestines in some fatal cases. The cholera bacillus,

comma bacillus of Koch, was found in abundance, and as a result of these observations they have reached the following conclusions:

1. That in deaths among immigrants coming from a cholera-infected district, a necropsy is absolutely essential, and cultivation tubes should be inoculated with the contents of the intestine, for the purpose of determining the cause of death.

2. That successful inoculations may be made at least twenty-four hours after death.

3. As the symptoms, in the cases examined, were by no means always well defined, the examinations were confirmatory evidence of the value of bacteria cultivation as a means of positive diagnosis.—*N. Y. Med. Jour.*, Nov. 12, '87.

Treatment of Habitual Constipation.—DR. JULIUS ALTHAUS calls attention to a method of treatment of this troublesome condition which he has found as effectual as it is simple. It consists of the injection into the rectum, by means of an ordinary glass syringe, of about half a teaspoonful or a teaspoonful of glycerine. It was discovered by Dr. Oidtmann, a Dutch physician of Maastricht, who advertized it as a nostrum in several medical journals. Dr. Anaker purchased the specific, and found it to answer the purpose well, and then took the trouble to analyze the fluid supplied by Oidtmann for injection, and found it to consist of glycerine, with a small quantity of a conium preparation and a sodium salt. He soon found that the glycerine alone would answer every purpose.

Anaker's explanation, which is accepted by Dr. Althaus, is this: Glycerine, when brought into contact with the mucous membrane of the rectum, withdraws water from it, thus causing hyperemia and irritation of the sentient nerves of the rectum, which in its turn leads reflexly to powerful peristaltic contractions ending in defecation. The larger the accumulation of feces, the greater is the effect. There is no discomfort or pain, but the action takes place *cito, tuto et jucunde*. Sometimes, however, a little throbbing is felt in the rectum for a few minutes afterwards.—*Brit. Med. Jour.*, Dec. 24, '87.

Free Hydrochloric Acid in the Stomach.—An editorial in the *Med. News*, Jan. 14, describes a new test for the presence of hydrochloric acid in the contents of the stomach, which is believed to be free from the objections that maintain against the tests previously used.

The test [discovered by Dr. Alfred Guenzburg] is based on the discovery by Wiesner that pine wood dipped in a solution of phloroglucin, and then moistened with concentrated hydrochloric acid, is colored a dark red. Max Singer ascertained that the substance in the wood which, when in contact with phloroglucin and hydrochloric acid, strikes a red color, is vanillin. The reaction was studied more minutely by Etti, who found that pyrogallol, in the presence of vanillin and hydrochloric acid, behaved in the same way as phloroglucin.

For the sake of convenience, Guenzburg selected phloroglucin for his test, which is as follows: Thirty grains of phloroglucin and fifteen grains of Merck's vanillin in about an ounce of absolute alcohol, make a yellowish-red solution. A trace of concentrated mineral acid added to this solution produces a bright red color, and at the same time there takes place a separation of beautiful red crystals. Concentrated organic acids (lactic and acetic), either alone or mingled with chlorides, give no such reaction. The mineral acid to which the reaction is due must be concentrated. If diluted, the color does not appear until some of the fluid is driven away by heat, when the red crystals appear. Boiling must be carefully avoided.

The following is the technique for application to the examination of the stomach contents: A few drops of the filtrate of the latter are mingled in a porcelain dish with the same quantity of phloroglucin-vanillin solution, and carefully heated. According to Guenzburg, the reaction will take place invariably if one-tenth of one per cent of free hydrochloric acid be present, a delicacy at least equal to that of the aniline solutions. If but one-twentieth of one per cent of the acid be present, the reaction occurs in the form of red streaks, and below this degree it ceases altogether. Guenzburg is of the opinion that a quantitative estimate of the amount of hydrochloric acid may be made in accordance with the intensity of the reaction, but it is doubtful whether any near approach to accuracy could thus be obtained.

Treatment of Intermittent Fever.—Intermittent fever is one of those things that, like the poor, is always with us, and an occasional review of experience in treating this disease is always in place. Dr. ROBERT C. KENNER contributes a well written paper on this subject to the *American Practitioner and News*, Jan. 7,

from which we extract the leading points as to treatment. He favors the administration of opium by the mouth or hypodermically at the commencement of the cold stage, thus succeeding in aborting the paroxysm in a considerable proportion of cases. If he sees the patient in a cold stage which is more protracted or severe than former paroxysms, he administers chloroform in preference to opium, giving one dram in emulsion, which may be repeated in forty minutes, if the first dose is ineffectual. [We have found the inhalation of amyl nitrite efficient in cutting short the cold stage of an intermittent fever.]

When the hot stage is complicated with gastric irritability he gives oxalate of cerium in five-grain doses hourly, with or without cracked ice as an adjuvant, according to circumstances. In more obstinate cases he has found half-grain doses of calomel every hour or half-hour to act efficiently. For the headache and threatened or incipient cerebral hyperemia, he orders bromide of sodium or potassium $\mathfrak{Zss-j}$, repeated in four hours if necessary. Where the temperature is very high he orders sponging with tepid or cold water.

He discusses at some length a number of the remedial agents that have been used to prevent the recurrence of the paroxysms. He then describes four distinct types of fever and discusses their treatment as follows:

The types of intermittent fever met with in practice may be classed in this order: (1) That which is attended with that condition known as "biliousness" in its most marked form. Plus the fact that the patient has had an intermittent paroxysm, "the complexion is muddy, the conjunctivæ are yellow, the tongue is heavily coated with a yellowish-white fur, a bitter taste persists in the mouth, the breath is heavy in odor, even fetid." (The words in quotation marks are from Bartholow in Pepper's System.) There is generally a disgust with food and more or less obstinate constipation. If the bowels have acted, they have generally done so imperfectly, and the dejections are clayey or yellow in color. There is frequently retching and vomiting. Vomiting is very often an annoying symptom. This type I have observed occurs only in those patients who have resided in very malarial districts, those who live close to stagnant streams or pools, or near the banks of a river which is low or overflows and inundates the adjacent lands. It seems that malaria formed in a locality of this kind is necessary to

the production of this type. This type of intermittent fever formed ten per cent of the cases of which I have notes. (2) The second type is that one in which the accompanying symptoms of "biliousness" may be present, but to a much less extent, or even, as they often are, entirely absent. The tongue is usually more or less coated, though it is many times perfectly clean. The bowels are generally constipated, but frequently it is only to a slight extent, and sometimes there is a diarrhea with a red "beefy" tongue. The muddy complexion and other symptoms of the preceding type may be present in a less marked manner. The patient generally gives a history of malarial exposure, though he is often unable to make it out, and as a rule he has not been subjected to as virulent a degree of poison as the class who present cases of the first-named type. The febrile action in the hot stage will run as high, and the other stages will present no distinctive differences from ordinary intermittent fever, only that the first-named type may be attended with more gastric irritability and other symptoms of "biliousness." This type is the one ordinarily met with in practice. The third type is where the paroxysms have persisted long, and the patient has malarial cachexia. The patients are those who have been exposed to the action of the malarial poison for a long period, and who have had paroxysms regularly in some cases for six months and a year. The patients are anemic, and usually have enlargement of the spleen and liver, with more or less dropsy. There is often bronchitis and diarrhea, and this type has been mistaken for phthisis. The paroxysms are often masked, the cold stage is frequently but feebly expressed, and sometimes omitted entirely. The patient suffers from neuralgia, and gradually becomes weaker until he succumbs, unless the treatment is successful.

The fourth type is the one in which the paroxysms seem to recur from habit. Its history is one usually marked by more or less continued exposure to the poison and neglect to employ remedies in proper time and manner. The patients are generally more or less anemic, but present nothing like the depraved physical condition of those having malarial cachexia. It is seen mostly in those persons who have undertaken to treat themselves, or have resorted to the various nostrums until the system has become impoverished to a degree, and when the physician orders quinine taken in the interval he finds it unavailing. Even after removal to a healthy neighborhood the chills will recur.

In the treatment of the first type of cases nothing is so important as the timely administration of the compound extract of colocyath alone or in combination with calomel. Without regard to the time of the next recurrence of the paroxysm, I usually give it in doses of from ten to fifteen grains, repeated every eight hours, till the tongue has cleaned off and the symptoms of biliousness have entirely disappeared. Should the paroxysms recur after this has been effected, quinine will have to be resorted to. But it is not, according to my experience, good practice to give quinine at the beginning in this type of cases. I have never seen a case that was clearly defined of this type that would not readily yield to this treatment. When gastric irritability complicates this type the mild chloride of mercury should always be combined with the colocyath, otherwise it is not always necessary.

In the second type of cases we are called to treat the ordinary expression of the malarial poison. This is the form in which quinine acts as a specific as much as any drug acts under the circumstances. Given properly it is almost an antidote. I have found it best to give the antiperiodic in five doses of four grains each, beginning six hours before the paroxysm is expected, and given hourly until all five doses are taken. The last dose of the quinine will, of course, be taken an hour before the time that would be occupied by the chill. I have no reason for believing that the antiperiodic virtues of quinine are exhausted by giving it in one large dose, as Hertz and others advise. I order the antiperiodic taken as stated above for three consecutive days. It is given with advantage in this manner over the practice of giving what we consider the antiperiodic quantity any time in the interval. One reason is that during the time quinine is being taken we can keep the patient indoors till the time of the chill has passed, while, if it is taken in the sweating stage, the patient might go out, unduly expose himself, and bring on the paroxysm. Then, given in this manner, we are more assured that the malarial poison is neutralized; besides the production of cinchonism for three consecutive times will make the chances for the return of the chill almost inconsiderable. The experience of several great observers would seem to confirm this position. Since I have begun to give the antiperiodic later in the interval my success has been greater. My experience has led me to the conclusion that quinine given in solution is not more certainly antiperiodic. Fluids, it is well known, are more easy of absorp-

tion than powders, yet we are not on this score to ignore making our prescriptions palatable. The exhibition of quinine in capsules is a practice open to no objection if they are soluble. I have never had cause to regret using the drug in this manner. To give it in freshly made pills is also a good way. When the stomach is irritable I order two grains of oxalate of cerium with each dose of quinine. When the agent is to be given to children, I have ceased prescribing it any other way than in the aromatic syrup of yerba santa when it can be taken by the mouth at all. It completely disguises the taste of the drug and makes it so palatable that children like it. When it is not advisable on any account to give it *per os* or *per enema* it can be given hypodermically with advantage. Given in doses of six grains hypodermically, I have found it equal to twenty taken *per os*. When there is a furred tongue and other symptoms of biliousness, colocynth and calomel should be added to the treatment.

Sternberg ascribes the oxytocic powers often attributed to quinine to a misconception. I have often given women advanced in pregnancy full doses of quinine, and have never had the least reason to regard it as an abortifacient. Malarial fevers often produce abortion, and this is how the drug came to be looked upon as an exciter of uterine contractions. Fifteen or twenty grains of the bromides of potassium or sodium given during the time quinine is being taken will entirely relieve the unpleasant effects of cinchonism, such as tinnitus aurium, etc. This also lessens the tendency to nausea and vomiting. Such good results follow it that I almost follow giving it in a routine way, and never fail to give it when the patient complains of the unpleasant effects of cinchonism.

In the third type removal from the malarial surroundings is imperative. The patient's general health must be looked after. Cod-liver oil, arsenic and iron are the remedies which will afford the best results. Diarrhea, bronchitis, and whatever complications may exist, will demand special interference suitable to the particular case and not possible to outline here. Arsenic should be given until the symptoms of the edema arsenicalis appear. Quinine should be directed against the chills or elevation of temperature for one month, if that long be necessary to dissipate them.

The fourth type, which is seemingly habit, calls for treatment somewhat different from the other varieties. There are several remedies which render us substantial good in these cases, and which

may be relied on with confidence. The patients should be put on tonics, such as iron. I frequently prescribe tr. ferri. chlor. in combination with liq. arsen. chlor. with the most satisfactory results. The best means to arrest the paroxysms are those agents which impress the nervous system. The bath of cold water is an excellent measure, used as above directed. Opium in full doses, one hour before the expected paroxysm, is one of the surest means of curing this form. It is well often to combine capsicum or piperine with the opium. Opium should be given for at least three consecutive days, or may be longer.

When the chills recur every fourteen or twenty-one days, quinine in doses of five grains, given for a period of four weeks, generally succeeds in my hands in curing them.

For the enlargement of the spleen nothing is so good as tonics and the application of the ointment of the biniodide of mercury over the site of the spleen.

ABDOMINAL SECTION.—Dr. Senn reports Dr. Keith, of Edinburgh, as saying, that in spite of his unparalleled results in operative treatment of myo-fibromata of the uterus, as his experience increased with this class of tumors, the more he dreaded a radical operation.

Referring to a case in which he saw Mr. Tait remove the ovaries and tubes of a patient who had suffered during, and after delivery on account of a contracted pelvis, he remarks, that while all would probably agree that it was not desirable that this woman should be exposed to the dangers of another pregnancy, it occurred to him as a practical American, that it would have been wiser to resort to the less hazardous procedure of unsexing her husband. This would have secured the same immunity at a minimum risk to life and morally, he thinks, would have been more justifiable.—Letters to Dr. Fenger, *Jour. of Amer. Med. Assoc.*

AMERICAN AND GERMAN STUDENTS.—Dr. Senn says as the result of his observations abroad, that there is no question in his mind that the average American student learns more in one month than the average German student in three, not because he has better teachers or better facilities, but because he makes better use of his time.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, Dec. 15, 1887, DR. COLES, Pres., in the chair.

ABORTION—REMOVAL OF SECUNDINES—ANTIPYRIN.

Dr. Scott.—Last week I was called to see a lady out in the neighborhood of King's Highway. I didn't get the telephone message until I was putting up my horse, when I immediately drove out, meeting the husband with a neighboring physician, who told me that it was a case of miscarriage and that a very serious hemorrhage had threatened during the afternoon. The physician had already tamponed the vagina and the lady was safe for the night. The husband said: "Doctor it is very muddy and very dark, and you might as well turn back as everything seems to be all right now, and come back in the morning." Next morning I went out and found that the lady had been shopping on the previous day. At that time although she feared she was pregnant she was not positive of it, because there was a lack of many symptoms that had presented themselves in her former pregnancies. When she went home she was taken with severe flooding, but believing it to be only a return of her menstruation, she paid little attention to it until she was overcome with the loss of blood, then she lay down, but didn't send for a physician until about the time I was telephoned for, and then her husband went for this physician who tamponed the vagina. The next morning I removed the tampon and, as a matter of course, I expected to find a fetus, but I found nothing of the kind. I found and removed a large plug of clotted blood lying on the surface of the os, which was very patulous. On introducing my finger I found the placenta or portions of it, which I removed as much as possible, but she complained of a good deal of pain all over her abdomen and after getting off as much of the placenta with my fin-

ger as I could, I washed out the uterus thoroughly and tamponed the vagina again. I went out in the afternoon expecting to find that the placenta had become detached, I found marked tympanites and considerable pain over the whole abdomen. The region of the uterus was very painful, and she begged me not to wash out the uterus; but feeling it to be my duty to do so, I told her I would give her as little pain as possible. I washed out the cervix and uterus and got away quite a large portion of the placenta. I then curetted it, and I thought I had gotten the whole of it away. There had been no flooding during the day. The next morning I found that she had passed a very bad night; she complained of considerable dizziness and nausea; and the tympanites had increased very materially; the temperature was 103° , the pulse 118. I had already given her a little ergot. The night before I had given her a full dose of opium for the purpose of quieting the pains and overcoming the restlessness. I now applied warm fomentations and warm turpentine stupes over the abdomen. I had applied these before, and they seemed to be of much service. I then applied warm flax seed poultices which seemed to have a better effect than the turpentine stupes. I washed out the vagina and the uterus again, but got nothing at all from the uterus. In the afternoon I went back to see her. I then gave her for the headache and high temperature, antipyrin in ten grain doses every two hours until the headache should subside and the pulse come down, and I ordered after that quinine and the muriated tincture of iron. About seven o'clock in the evening the headache had gone and she was fairly comfortable. The next morning there had been a little improvement in her case, no flooding, but in the afternoon about three o'clock, I received a telephone message from her husband saying that his wife had been taken much worse; that ever since I had been there in the morning his wife had had frequent fainting spells—sinking spells. I had ordered brandy and whisky very freely before this. I went out as soon as I could, and found that she was having fainting, sinking spells constantly and constant nausea; her face was puffy and edematous, except around the eyes, where there was a sunken appearance with a dark ring around them. The abdomen was still tense. I kept up the warm poultices and ordered opium. She thought that the opium was the cause of her being sick at the stomach, so instead of opium I ordered antipyrin, which I have always found relieves this severe

pain and headache. I kept up the warm poultices, gave her an enema, and washed out the uterus myself. When I saw her the next morning she was decidedly better. At this time there was not so much headache as dizziness, a swimming of the head. She could not move her head upon the pillow without producing a feeling of swimming and nausea; there was great pain in the abdomen, not so much that she could not turn over on the side; she could lie on either side or upon the back; there was no suppression of urine, but the bowels were constipated, which I corrected with enemata. I washed out the vagina with bichloride of mercury solution, one in two-thousand—believing this too strong for the injection of the uterus I reduced it by adding boiling water making it one in three-thousand, washing out the uterus with that. Today I saw her, and she has a good appetite. The tympanites passed off day before yesterday and she is now doing well. Now I can not exactly say what was the cause of the trouble; it was a case of septicemia, or at least it simulated it in many respects, yet there has been no fetid discharge from the uterus at all. I washed out the uterus daily, and only at the first and second washings did I get any of the placenta away. The ugly symptoms seemed to me to be due to loss of blood rather than to septicemia, though some of the symptoms simulated those of septicemia very much.

Dr. Boisliniere.—What of the fetus?

Dr. Scott.—I never saw it, and had it not been that I got away large portions of the placenta, I would say she had not been pregnant, but I got away large portions of the placenta myself.

Dr. Boisliniere.—In what stage of pregnancy was she?

Dr. Scott.—Between the third and fourth months.

Dr. Boisliniere.—And there was no fetus found?

Dr. Scott.—If there was a fetus it passed away with the first flooding, which came on very suddenly.

Dr. Frank Glasgow.—Were there any membranes?

Dr. Scott.—There were none except the plug that I pulled out of the uterus which was nothing but coagulated blood. The doctor who saw her first told me that it was a case of threatened miscarriage, so that of course when I went the next morning and removed the tampon I expected to find a fetus or some evidence of pregnancy. I was very much surprised to find nothing of the sort.

Dr. Gregory.—What sort of tampon did he use?

Dr. Scott.—He used a cotton tampon; made little balls of cotton

with which he filled up the vagina thoroughly, not what we call the kite tail tampon, but just little pledgets of cotton.

Dr. Gregory.—Did he put strings on them?

Dr. Scott.—No, sir.

Dr. Papin.—Did he use a speculum?

Dr. Scott.—No, sir. The next day when I tamponed the vagina I used, as a matter of course, the kite-tail tampon, and she complimented me very much on the manner in which I tamponed. I used Sim's speculum. She said it was quite different from the manner in which the first tamponing had been done.

Dr. Boisliniere.—Was this her first pregnancy?

Dr. Scott.—No, sir; it was the third; she has one living child, she lost one, and this was the third pregnancy.

Dr. Boisliniere.—Has she had any miscarriages before?

Dr. Scott.—No, sir; this was the first miscarriage.

Dr. Gregory.—Was there no apparent cause for it?

Dr. Scott.—None. She was rather anxious to carry this child; she is not like a good many ladies who are anxious to get rid of the product of conception; she said she loved her child as soon as she became aware that she was pregnant.

Dr. Coles.—What was the highest temperature?

Dr. Scott.—One hundred and three and three-tenths degrees.

Dr. Frank Glasgow.—I had a case last August almost exactly like that which Dr. Scott has reported. The woman was in perfect health; there was no history of hereditary disease, and yet she had had miscarriage after miscarriage. I don't know the cause of them. She had a premonition that a miscarriage would take place again. I tried my best to prevent it by the use of anodynes, suppositories and absolute rest. There was absolutely no fetus found; she was in the third month of pregnancy. I found a portion of the placenta, which did not come away in one mass, and on the placenta was a clear, transparent vesicle about as large as the end of my thumb, and nothing else was found. I curetted the uterus thoroughly. The woman recovered. Before that she had had very profuse catamenial periods. In this case I could find no cause for the miscarriage. I look upon this as of the nature of a mole.

Dr. Boisliniere.—Was there retroversion?

Dr. Glasgow.—No, sir; there was nothing wrong in the genital organs that I could discover.

Dr. Scott.—What was the condition of the lining membrane of the uterus?

Dr. Glasgow.—It seemed to be in good condition. Of course it was soft. We always find a good deal of soft, pultaceous material after a miscarriage.

Dr. Papin.—Did you seek for a syphilitic element?

Dr. Glasgow.—Yes, sir, and couldn't find it. I am certain there is no trace of syphilis in the case.

Dr. Coles.—Was the placenta entire?

Dr. Glasgow.—No, sir; it came out in pieces.

Dr. Coles.—I suppose some of it was retained and that is why you curetted?

Dr. Glasgow.—Yes, it didn't all come away. I would not curette the uterus if the placenta had all come away.

Dr. Maughs.—You think this was a mole, the product of conception?

Dr. Glasgow.—Yes, sir; I think it was a blighted ovum. She is a healthy woman, as healthy as you can find anywhere, and a prudent woman.

Dr. Boistiniere.—Did you examine the vesicle?

Dr. Glasgow.—No, sir; it didn't seem to contain anything. It couldn't have been a fetus; it was too small.

Dr. Papin.—I know how difficult it is to remove both the embryo and the placenta in the early stages of pregnancy where abortion is imminent, and these cases are the more dangerous on account of the hemorrhages which usually accompany them, hemorrhages that would seem to point to death. Many years ago I was called to the northern part of the city to a case of that kind, where the woman was actually blind from loss of blood, and very restless. I could feel in the uterus a part of the placenta presenting itself, but with the best manipulations that I could make I could not reach it, even with the placental forceps, and finding the midwife at fault, I called upon the gynecologist to aid in the work. I turned the woman upon the left side, placed the speculum in the vagina, and then drew down the neck of the womb with a hook, and as the canal was perfectly straight I saw what I was doing, and removed the placenta, and from that day to this I have never attempted to deliver the placenta after an early miscarriage or an abortion except in that position, and I never have occasion to curette the uterus. I have always found that with the placental forceps, or in their absence, with the ordinary dressing forceps, I can remove the entire placenta, I can see what I am doing, and it is ex-

ceedingly easy to accomplish. I would like the doctors present to try this method, and promise them that after performing it once they will ever after use it.

Dr. Glasgow.—What position do you speak of?

Dr. Papin.—The left lateral. I remember an instance of this kind that occurred about eight years ago in 1876. I was on the eve of starting for New York at the time, and I was sent for at one o'clock in the morning to see a relative of mine on Papin avenue, about four or five miles out, by a young friend of mind, a most intelligent practitioner, who had been with her all night. She was flooding to such a degree that I feared for her life; she was pulseless, restless, and was kept up by nothing but brandy. I said to him, doctor, have you tried the speculum? I had taught him this method. He said, "I never thought of it, I was so frightened I couldn't tell what to do." I turned the woman on her side and removed a little piece of membrane not bigger than a walnut and immediately the hemorrhage ceased. The husband who was a very intelligent man and a good deal of a mechanic, said, "I wouldn't have missed seeing that operation for a thousand dollars," so pleased was he with the result.

Dr. Scott.—I am glad to hear Dr. Papin speak so highly of that method, because in my lecture to-day I urged it upon my class, and as Dr. Papin's son is in my class it will impress the matter upon his mind. That is the plan that I have adopted for years. I swab out the entire fundus of the uterus with perchloride of iron. I carry a pair of long forceps in my satchel and take up a pledget of cotton saturated in a solution of perchloride of iron, and swab out the uterus with it. I think this will arrest the hemorrhage. In regard to placental forceps, I must confess I have not the confidence in them that Dr. Papin has. I do not like them much. Neither do I like the fountain syringe. I like a syringe which works with the hand, and enables me to use an intermittent current. I think we can detach the placenta better with it than with the constant stream. I think I can detach and wash away the membrane better with it than with the fountain syringe. I always wash out the uterus myself, and never permit the nurse to do it.

Dr. Glasgow.—Does anyone use the curette without using the speculum?

Dr. Scott.—Of course not. I unhesitatingly use the curette where it is necessary, but always through the speculum.

Dr. Papin.—I would use the curette if I thought it necessary, but I have never found occasion to do so.

Dr. Scott.—Do you introduce the placental forceps into the uterus?

Dr. Papin.—Yes.

Dr. Scott.—What is that but a curette, then?

Dr. Papin.—You may call it by any name you like, but you can not make me believe that a pair of scissors is a knife, although you may do the same work with them. A plain curette is simply a rake.

Dr. Coles.—I will briefly relate a case which is parallel in some respects with the case reported by Dr. Scott, and will state the method by which I treated it, which I think is some respects superior to the method which Dr. Papin employs. I was called in consultation last August to see a patient living on Cass avenue, it being represented to me that the patient was in a precarious condition, a lady who had suffered an abortion in the fourth month some three days previous. It was warm weather, and when we got to the door I could hear her groan. She was lying in the front room, what might be called the parlor, and seemed to be suffering the most intense agony, apparently with uterine colic. I asked the physician if he had syringed out the uterus. He said he had not, that nothing of that sort had been done, although he had syringed out the vagina. The lady presented almost a collapsed appearance; she was bathed in perspiration, and had a most anxious countenance. The pains were almost constant, somewhat paroxysmal. She was nearly pulseless, her finger nails were blue, her hands and feet were cold, and, as I say, she had the expression of countenance of collapse from the excessive, agonizing pain. I asked the doctor before we reached the house, if he had gotten away all the placenta, and he said he thought he had, but there might be a little remaining. I made an examination, putting my hand under the bed clothes, and thought that in all probability the miscarriage was due to the fact that the placenta was planted low down in the uterus, just within the internal os, because I could feel a portion of the placenta still adherent, and pretty firmly attached too. I put the patient on her back and brought her to the edge of the bed, putting an oil-cloth under her hips and draining it into an ordinary foot bath which was placed on the floor so as to catch the discharge, and used Simon's speculum, which I think is greatly pref-

erable to Sims' speculum, with the buttocks well over the edge of the bed so as not to soil the bed clothes. She was so nervous that the first thing we did was to give her a hypodermic injection, and we also gave her a little chloroform. Then I passed in the curette, and tried to scoop out this portion of adherent placenta. I will say that the discharge had a most horribly fetid odor, and I didn't succeed in getting the mass of the placenta away very readily. I found that it adhered very closely to the uterus and the blood flowed so freely that I was afraid the patient might bleed to death before I succeeded in accomplishing what I was attempting. I pressed upon the uterus from above and passed two fingers into the os, which was patulous, and broke up and gouged out with my fingers as much of the placenta as I could reach. I then took some of Seabury and Johnson's styptic cotton, and with a pair of curved dressing forceps, passed it well up into the fundus, and swabbed the uterus with it. I then took another piece and put it in. This diminished the bleeding, but not satisfied with that I passed the tube in and syringed out the uterus with hot water. She didn't bleed a teaspoonful after that. She was put back to bed, and although she had suffered a nervous chill, the temperature went up to 105°, I believe, after this chill; her fever passed off under antipyrin the next morning, and she made a very rapid recovery. Of course, the uterus was washed out, I think twice afterwards, but I think the excessive pain this woman suffered was due to the fact that the uterus was trying to get rid of this piece of placenta. It was attached just inside the internal os, and I think it was a case of placenta previa which brought on an early abortion. I mention this case more particularly to illustrate the use of Simon's speculum in such cases, which I think is preferable to Sims'.

Dr. Gregory.—Wouldn't Sims' do just as well on the back?

Dr. Coles.—No, sir.

Dr. Papin.—Simon's speculum requires more assistants, is more cumbersome, and you don't see the uterus a bit better.

Dr. Gregory.—I would like to inquire what you mean by hot water. I received a pamphlet a short time ago from Dr. Park, of Jersey City, in which he says that he uses water on wounds boiling hot; that is, it is boiling when it is taken from the stove and brought to him, and he applies this immediately to the wound, so that it actually turns the wound white.

Dr. Coles.—I use water as hot as I can bear my hand in.

Dr. Scott.—I should like to hear Drs. Maughs and Boisliniere express themselves on the best method of managing these cases of abortion between the third and sixth months, when the os is not patulous, where there is scarcely any dilatation, when the fetus has passed away but there is a portion of the placental membrane left behind. I would like to ask these gentlemen how they would get the placenta away. We know that it is often impossible. We are taught to put the hand upon the abdomen and press down, and then with the fingers of the other hand remove the membrane. Dr. Maughs will recollect that there was a gentleman at the American Medical Association at Richmond, who took a stylette and doubled it up and scooped out the uterus in that way.

Dr. Maughs.—I should say that in such a condition we should dilate the os and pass the fingers into the uterus and remove the portion of retained placenta. I do not think there will be much difficulty in reaching the fundus of a uterus in the third month of pregnancy with the finger. In this class of cases I sometimes use a ring, sweeping around the uterus, and with this ring you can feel a piece of placenta no larger than a pea, and you can scrape all these particles away. This ring will adapt itself to the surface of the uterus for the removal of the ovum and placenta, and can be introduced and rotated so as to cover the surface perfectly. It is a little awkward to do at first, but with practice it is just as easy as if we had dilated at the outset. It is introduced slightly concave, and by rotating it it fills the uterus perfectly. Not long before I went to Europe Dr. Hereford had a very interesting patient, who had been flooding for some time, and he sent for me. I put the patient in the position mentioned by Dr. Coles, with an oil cloth under her to drain the discharge into a vessel, and passed the forceps smoothly, embracing the entire ovum and removing it entirely. This patient was immediately relieved. It is dangerous to leave the smallest particle behind, as it is apt to cause post partum hemorrhage. After removing the ovum and membranes I washed out the uterus, as Dr. Scott did. I generally use carbolic acid, or I swab it out with persulphate of iron.

Dr. Boisliniere read a paper (vide p. 114) on

THE TREATMENT OF THREATENED ANTE-PARTUM ECLAMPSIA.

Dr. Gregory.—Insomnia is an indication for the use of the lancet in a great many women. If they can not sleep and you bleed

them, they get over the insomnia. I fully agree with what the doctor has said in his paper.

Dr. Frank Glasgow.—I recently read in the *Journal of Obstetrics* the statement that one of the causes of eclampsia is the transverse position of the child. The article was written by some one in Washington. I think it is Tarnier who says that in the majority of cases of eclampsia there is a vertex presentation.

Dr. Papin.—Where the child is viable I would not hesitate to induce premature labor. The doctor's paper was very interesting indeed, particularly his method of taking care of the child after birth. I will relate a case of my own, in which the period of conception was well known to the woman and to her husband from the very fact that he was absent from home, and remained at home only one night at the time of conception. The woman was very delicate, though she bore children rapidly, and readily became pregnant. From the day that she conceived until six months had passed she lost large quantities of water from the uterus, and I could not ascertain the cause of this loss of water. Whenever she stood on her feet she felt the beginning of labor pains, and often in lying down she was not free from them. I used simple hypodermic injections of morphine twice and sometimes three times a day. At the end of six months and twenty one days she gave birth to a child, with a single pain, apparently. I was present at the time, but I could scarcely cross the room before the child was born. It was her fourth or fifth child, and it was alive; but knowing that it was less than seven months, I thought it would die, but it did not, and it is now 13 or 14 years of age. The child weighed only two and one half or three pounds when it was born. I wrapped it in cotton, and put bottles of hot water around it, and fed it for a little while on simply sugar and water, and then got a tip-top nurse for it, and in about two months it began to awake and became a very lively baby, and when it was four months old its mother presented me with its photograph; it then weighed twelve pounds. I remember having read of, or heard a case of this kind related in France many years ago, but at that time I did not know whether to give it credence or not. In taking care of the child I carried out pretty much the method that Dr. Boisliniere has detailed, except that my method of incubation was a little rougher. But when the child has been carried for seven months, and there is urgent cause to bring on premature labor I would not hesitate to do so.

Dr. Maughs.—I agree with Dr. Boisliniere entirely in the management and treatment of eclampsia. Indeed there has been nothing added to the treatment of puerperal eclampsia in the last thousand years except in our ability to empty the uterus, which the old physicians could not do. Whatever may be the theory, the practice has always been to empty the uterus, if possible, from the times of Hippocrates to the present time, but the trouble was that in the olden times they could not empty the uterus. When labor pains came on they were powerless; therefore a good many patients died that would readily be saved in these days. There has been no change in the theory—no change in ideas about the curative effect of emptying the uterus. That has been the practice always when it could be accomplished, and as a general thing when the uterus has been emptied the convulsions have passed away. They do not necessarily cease, but as a general thing they do. I have never had any confidence in the injection of water into the vagina or into the uterus. Of course it is dangerous to inject it into the uterus, and it is dangerous to inject it into the vagina. There are cases on record where patients have died from the injection of large quantities of water into the vagina. Some physicians use barrels of water. I have seen cases where the physician broke down the attendants and pumped a cistern nearly dry irrigating the uterus, and it didn't affect the labor at all. Dr. Coles very properly used the catheter; it will nearly always bring on labor. But we have a more ready method still. A number of years ago, when Drs. Guhman and Cooper used to practice a good deal together, they sent for me to see a very interesting case of a German woman in her first pregnancy with puerperal eclampsia, and very properly they had bled her very freely; she had another attack and they bled her again, a smaller quantity this time; then she had another attack, and they bled her a third time, a small quantity this time, and moved her bowels. That was on Saturday: on the next Friday her condition was not improved, and not a drop of water had been passed; there was no water in the bladder at all. She went from bad to worse. She was profoundly oblivious to everything; she was profoundly narcotized and comatose from the first convulsion. This continued a whole week with no sign of labor, notwithstanding this free bleeding. Usually so much bleeding would have produced labor; very often before the bleeding has ceased labor pains supervene, and the woman is delivered before we can tie up her

arm. But this woman remained profoundly comatose, and they sent for me to assist them in emptying the uterus. They had hoped that labor would come on, and it didn't. I took a Molesworth's dilator, and dilated until I could introduce my finger into the cervix; then I used a Barnes' water bag. As soon as I could introduce my finger I ruptured the membranes and allowed the water to be discharged, then applied forceps, as soon as I could get the mouth of the womb sufficiently dilated, and delivered the woman, and the next Friday she woke up and asked "what of the night," and they told her all was well; and she is living yet. It was a remarkable case on account of its persistence. I don't think albuminuria is the cause of puerperal convulsions. If we examine the urine again and again before the convulsion we find no albumen, but immediately after the convulsion has occurred it will be found. There are a great many cases in which albumen may be found, and still it does not produce puerperal convulsions, yet when we have puerperal eclampsia it does cause albumen in the urine.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated meeting Nov. 15, 1887, DR. EVERSOLE in the chair.

SCARLATINIFORM ERUPTION.

Dr. Williamson said he had been called to see a little girl about five years old, a thoroughly well nourished child. The child had been remarkably well up to that time; had been sick only two or three times in all her life. He saw her about ten o'clock in the morning the first time, and found her in a very high fever. He had no thermometer with him and could not tell the temperature, but judging from the intense heat and dryness of the skin and rapidity of the pulse, etc., he judged it was probably 101°, or thereabout. At the second visit he made a diagnosis of malarial fever. The child was intensely nervous: she had complete loss of appetite, very great thirst and extreme restlessness. On the third day her face was quite scarlet and her mother said the eruption came just as she woke up: while being roused from sleep this flush came upon her face, hands, and feet up to just above her ankles. They were all scarlet, and the face looked very much as if it were the

eruption of scarlet fever, just that color. The mother asked if it was scarlet fever. He said he did not know, but thought it was malarial fever. Within a half hour the eruption had disappeared; the child became paler and dropped to sleep while he was there. He remained in the room probably two hours to see her wake up, and just before she woke he noticed a blush come over the face. It seemed to start at the chin, and gradually diffused itself over the face, and her face became reddened: so did her feet and hands. After that during the continuance of the fever, which lasted perhaps three weeks, the temperature ranged from 99° to 101° . There was all the time great thirst, complete loss of appetite, and extreme restlessness; she slept but little, catching little naps; but did not sleep long, and would awake with a sudden cry. He thought probably there was spinal irritation; but could find no evidence of it; her mental faculties were clear. Dr. Graves saw her in consultation but could not account for the peculiar eruption. This remained from ten to fifteen minutes and then passed away. As long as she remained awake there was no eruption, but when she went to sleep the coming of the eruption seemed to rouse her. Finally Dr. Bond was called in to see the case. On feeling the abdomen, in making his examination, he said he felt satisfied that there was tenderness there, and that the position of her legs indicated that there was peritonitis; that there was neither diarrhea nor constipation, her bowels were about as regular as could have been expected in a child: in fact she had a moderately good operation every day and without the use of purgatives. This peculiar eruption continued to come and go in this way for at least ten days, probably a little longer, and finally disappeared. Immediately after Dr. Bond visited the child and pronounced it peritonitis, the child straightened her limbs, turned on her side and assumed quite a comfortable position. There was no distention of the abdomen: there was some little flinching but no tenderness, no hyperesthesia over the skin. There was no special dilatation of the pupils, although the temperature ranged from 99° to 101°

Stated meeting, Nov. 29, 1887. DR. NELSON in the chair.

CONSTIPATION.

Dr. Hardaway introduced the subject of the non-medicinal treatment of constipation. Within the last two or three months he had

observed a paper in the *London Lancet* by Sir Andrew Clark, on the treatment of constipation, and he felt a little flattered on finding that the measures recommended by him were about the same that he himself had been using for a number of years. He was in a way to see a great deal of constipation, because it is very common factor in skin diseases; or at any rate it is coincident therewith. A large number of cases of skin disease, particularly those implicating the sebaceous glands, acnes, etc., have constipation as a factor; and we readily see the importance of correcting it. Such cases of constipation, he thinks, are due to a great extent to simple torpor of the bowels, the result of some disturbance of innervation, due to debility of the patient, or a torpor which has been acquired through inattention, or again frequently to the fact that the feces are not sufficiently liquefied, particularly with women.

The treatment that he has followed has been about this. Necessarily it goes hand in hand with the treatment of dyspepsia, with dietetic treatment, because many of these patients have dyspepsia to a greater or less degree. The worst possible plan is by the use of the usual purgatives, mineral waters, etc. We may be forced by the necessities of the case to give a sharp purge, to make the patient comfortable, but the method of constantly resorting to drugs is the worst possible thing we can do. In the simplest cases he orders patients to drink hot water, as hot as it can be borne, at least twenty minutes or half an hour before breakfast, the water not to be drank down at a gulp, but to be sipped. This direction is given at the mineral springs in Europe. He orders them always to sip the water as they are dressing, when they first get up. They are to sip another glass of hot water on retiring. As a matter of general hygiene, he orders that the patient rub the skin thoroughly with a sponge, or what is admirable for the purpose, a wash rag called loofah, the pith of a Chinese gourd, which is on sale at some of the shops. This is admirable in cases where the patient is unable to use the necessary friction with a coarse towel; where people are sickly, it requires an unusual amount of exertion which will debilitate them. By using this pith of gourd they get the necessary stimulation of the skin. Then he directs them to make it a habit to endeavor to get an action of the bowels at the same time each day. If they fix the time at eight o'clock, they are not to wait until quarter past eight, but make it exactly eight. He also instructs them to take no reading matter with them to the closet. If a per-

son who is habitually constipated takes to the closet something to read and becomes interested or excited, his mind is diverted from the object for which he went there. He never lets patients preface a meal with a glass of ice water; during the meal he allows them to drink enough water to mix with the food in masticating it, and allows them to drink plenteously of water between meals, and directs them by all means to drink a glass of water two hours after the meals. His attention was called to the importance of that by Dr. Squibb, who stated that very frequently constipation was kept up by the fact that the feces were hardened and would not readily move, especially when the muscular action of the intestines was weakened, and that if plenty of water was drank, it would be overcome. Dr. Hardaway makes his patients drink a glass of water an hour or two after a meal, just as he would prescribe a drug. He insists that his patients walk a half hour morning and evening if able to do so. There is no greater mistake than ordering some patients to take a walk. A great many delicate people have been ordered to take a walk, with the result of producing exhaustion. He generally directs them to walk along the line of a street car and when they become fatigued to come home; or to walk until they are thoroughly exhilarated, and while in that condition to turn around and go home. If a walk of five minutes tires them, let them make it two minutes at first, gradually increasing it, as they are able to stand the increased exertion. Of course the walking should not be done after a meal.

There is no objection to ordering the patient while at stool to gently knead the bowels, especially in the direction of the colon. If it is possible to get a Swedish movement treatment, where the person in charge understands the use of it properly, Dr. H. always orders that in addition. There is no objection to a certain amount of gymnastic exercise, but patients can not always bear it. He believes this plan faithfully carried out for weeks, even for months, will nearly always meet with success, a purely non-medicinal treatment.

There are some cases where we are unable to make the slightest impression in the beginning with that treatment, so we must use laxatives and tonics. A teaspoonful of common salt in a glass of water will frequently suffice. Many patients keep that up for years, and it answers the purpose. If this is not sufficient, and only in the beginning, where the case is obstinate, if it is not

amenable to purely non-medicinal treatment, he may give the patient for a while the ordinary pill of strychnia, belladonna and a small quantity of aloin, or sometimes cascara sagrada in 20 or 30 drop doses of the fluid extract at meals. In cases that present an extreme degree of obstinacy, we can generally get a very good result from Spender's pills of aqueous extract of aloin and sulphate of iron, giving one pill three times a day until an effect is produced, gradually diminishing the number of pills administered.

As a rule he does not order the so-called laxative fluids and foods. He objects to the use of oat-meal and that class of foods which act mechanically, as in the course of time the bowels become just as much the slave to these foods as they do to drugs. But under certain circumstances, where we do not wish to use drugs, or where the constipation is so great that the simplest measures fail, there is one thing which will frequently have the desired effect: a small slice of what the Germans call pumpernickel, a small slice of this German black bread given three times a day with the meals will often suffice. An exceedingly large number of patients who have been moderately constipated, will have their bowels moved without the use of a drug at all.

We are all aware that patients often complain that their bowels do not move enough. They imagine that they must pass a great amount of feces, whereas, even in young people a moderate amount of feces is sufficient, while in elderly people, constipation is the rule. In people in advanced life, if the bowels move once in three or four days it is quite sufficient.

Dr. Todd thought *Dr. Hardaway* had omitted a very important point in the matter of constipation. Of course all know that the only way to treat constipation is by hygienic measures, and some gynecologists maintain that the reason why women are generally constipated is because they do not take enough exercise and the right kind of food. There is one point the doctor has not touched upon at all, and the reason why pumpernickel succeeds may be explained in this way. At the present day persons who live nicely at all, take their food in such concentrated shape that there is really nothing for the bowels to act upon; that is why oat-meal and flour in which some part of the husk is left in, will often overcome constipation; because it gives the bowels something to take hold of; the muscles of the intestines have something to act

upon. Most people use only very fine flour made into nice white bread; there is nothing in it but starch and other soft matters, and they eat very little meat, and even then do not swallow the fibre, but content themselves with chewing it and swallowing the juice, so that the muscles of the bowels have absolutely nothing to take hold of or act upon. He thinks this a great vice of our civilization; he thinks flour should not be bolted; it should be taken from the mill just as it runs from the mill stone, with no bolting at all; that we would be far healthier if this was done instead of using extremely fine flour.

Notice the diet of the domestic animals. The herbivora distend the stomach with a very large amount of matter; the carnivora will chew up bones and swallow them. The feces of dogs consists largely of the salts of lime and particles of bone and refuse matter. The feces consist of refuse matter and some excrementitious material. This is the secret of the success of pumpernickel and of oat-meal, that they contain the coarse portions of the cereal. We know that the doctor is prejudiced against oat-meal because it aggravates some skin diseases.

Dr. Nelson asked how *Dr. Hardaway* would apply a system of treatment such as he had detailed to the case of a three years old child. He knew of a case of a child only three years old who during the first two years of its life did not have a passage at all, except after the use of an injection, and it has been subject to constipation so as to require the use of injections almost continuously even within the last year.

Dr. Leete thinks very great gains have been made in the last two years in respect of the study of constipation and its causes and in respect of the best method of treatment. While the old treatment of constipation was purely by contraries, by purgatives and drastic cathartics, the newer and better treatment takes account of the causes underlying the evil complained of. He thinks that the more we look into the matter, the more we will be forced into the conclusion that constipation as a rule is set up in childhood, and in quite early childhood. He believes that if children and men and women were no more restrained by clothing and a sense of what is decent and proper than the beasts of the field, constipation in the human family would be as rare, no matter what was their ordinary diet, as it is among the beasts of the field. As long as children are in the charge of the careful mother or the careful nurse, it

is exceptional, he thinks, to see a young child suffer much from constipation. But immediately when the child passes out from under the careful observation of the mother or nurse, little or no attention is paid to the matter of responding promptly to a call of nature to empty the bowels, and the foundation for a constipated habit is laid in that way. The call disregarded results very soon in a less urgent call, until presently the bowels do not insist upon being emptied until they are so positively overloaded that it becomes a matter of necessity. By that time the quantity and weight and pressure from above downwards is sufficient to make that which is lowest down hard, as well as very large in diameter, and thus a new evil has to be contended with. The operation of evacuating the bowels is something more than disagreeable, it is positively painful. And so it comes about that you may easily meet with children below ten years of age, sometimes only five years old, who are sufferers from obstinate constipation. They have foul breath and more or less bowel discomfort. When we meet a man, and a comparatively young man, who has not suffered much from constipation, possibly not at all, it is quite rare. They become interested in business or study, or they have engagements which conflict with attention to the bowels, and they permit themselves to disregard the call to stool, and presently they establish the constipated habit, and it grows, unless they reverse the rule, attend to the bowels and break it up promptly. Cultivated constipation, if the term is admissible, is exceedingly common among girls and women. And superadded to this carelessness is the evil of dress peculiar to women; deforming the body by fashionable cramping of the organs, pressing them out of their proper places and giving them insufficient working room.

Dr. Hardaway had been treating his patients in connection with the treatment of diseases of the skin.

Such study as he himself had made of constipation and the best means of overcoming the habit had been with patients of all ages, and without regard to any other complications. More than fifteen years ago he began to treat constipation by insisting as a part of the treatment on regularity in going to stool, and upon an abundant use of water; and when patients were very much in need of relief of constipation, he had made use of purgative and tonic treatment, belladonna, podophyllin and strychnia. He did not use aloin, for the reason that it has an effect on the lower part of the bowel which he did not desire.

His plan of treating constipation has been briefly this, and the results have almost without exception been exceedingly satisfactory. With patients who have become habitually constipated through inattention to the emptying of the bowels when the bowels signified that they wanted to be emptied, the first thing to do is to try and impress upon them the importance of a time when they can almost certainly go to stool each day and endeavor to have a movement of the bowels, generally the best time to go being directly after the morning meal. He believes that it is more natural for animals to have a movement of the bowels soon after eating in the morning. He advises them to take a drink of water, not ice-water, but ordinary drinking water just as it come from the hydrant, soon after rising in the morning, half an hour or an hour before eating breakfast; to rub themselves briskly with a towel and if possible take some exercise before breakfast. He advises them to use with their meals a reasonable quantity of water because water is the natural solvent of food. He tells them they are not to regard tea or coffee or chocolate or milk as food solvents, but as food, and so they should be ranked at the table, particularly strong tea and coffee or chocolate and milk. He has never insisted on the use of oatmeal or any coarse bread as any part of the treatment, but has pointed out to them the commonly accepted opinion during these later years, and it is quite an old opinion, with respect of Graham bread, that such coarse bread acts as a mechanical stimulant to the bowels, and that it was really more wholesome than the fine flour because by the bolting we waste some valuable parts of the grain. In addition to this, if the constipation was very obstinate and pronounced, if the patient was much in need of immediate relief, the first draught in the morning contained a small quantity, say the fourth of a small teaspoonful of sulphate of magnesia, or still better the sulphate of soda, which is a better solvent. If they object very much to the bitter dose, he uses common table salt, which is not as good, however. The pill mentioned contains generally one-twentieth or one-sixteenth of a grain of podophyllin, one thirtieth of a grain of strychnia, and one-fourth of a grain of belladonna. He does not use drugs, however, if it is possible to avoid them. He is satisfied that the first impression that many people have of the value of an abundance of water, *i. e.*, two or three glasses between meals and a sufficient amount during the meal, is after they have gone to visit some watering place where it is the fashion to make use of an abundance of water. Patients

often look surprised when told that they should not regard milk, and chocolate and tea as drinks; and still more so when strong tea and strong coffee are condemned as taking the place of water as solvents for food.

Dr. Hardaway said in regard to what *Dr. Todd* had said about coarse food, that it holds good in people in good health, who have good digestion, but we must also remember that what goes into the bowels has to pass through the stomach first; and very often the coarse food, such as oatmeal for instance, interferes with digestion. Oat-meal frequently gives rise to indigestion and dyspepsia. One drug which he had used very satisfactorily, and which was brought to mind by *Dr. Leete's* statement with regard to Epsom or Glauber's salts, is the phosphate of sodium. It is an admirable laxative for children. It is not at all nauseating, in fact is without any appreciable taste.

PROGRESSIVE MUSCULAR ATROPHY.

Dr. Brookes presented a patient 42 years of age, an Englishman, single, a steamboat cook. From the age of 17 years he has indulged freely in alcoholic and venereal excesses. He stated that he had contracted syphilis, although no evidences of it are apparent. With one exception he seems to be a perfectly healthy man. In 1880 after a protracted spree, he observed a marked weakness of the distal phalanx of the right thumb interfering with writing. This was followed by atrophy of the muscles of the thumb, and of the right forearm; he has received numerous blows but none of special importance. Disease not hereditary—upper extremities only involved.

The following condition is observed: Marked parallelism of thumb with fingers, also semiflexed, claw-shaped position of hand. All the muscles of right hand are greatly atrophied, flexor muscles of right forearm less so. Muscles of left hand and left forearm have recently been attacked by this degenerative process, though to a less degree. Patient has been treated with potassium iodide, mercuric chloride, Hammond's pill, of zinc phosphide and extract of *nux vomica*.

During the past five months faradism has been used daily with decided but only temporary beneficial effect. The following prescription has been faithfully taken for the same length of time.

R̄	Strychninæ sulphatis,	-	-	-	-	gr. j.
	Acidi phosphorici diluti,	-	-	-	-	℥j.
	Syrupi aurantii florum,	-	-	-	-	℥ij.

M. ft. sol. Sig. Teaspoonful three times a day.

From patient's statement and Dr. B's own observation, while there has been no improvement, there has been a diminution of the degenerative process. Patient still attends his business, though greatly impeded by the diminished usefulness of his hands.

Dr. Hermann considered this quite an interesting case. The trouble had begun in the typical way. It is generally the muscles of the thumb that show weakness first, and usually it is the right hand that is attacked: the muscles that move the index finger are first affected: then the other interossei become involved, usually the extensors first, as in this case: then very often atrophy of the deltoid occurs, and in some cases more of the larger muscles of the trunk, and very often the muscles of the hip, so that walking is somewhat awkward and peculiar. There are different types of progressive muscular atrophy, and this seems to be one of the usual cases. Of course the disease is a protracted one. Sometimes we are able to stop the disease in the beginning. He had seen a case in consultation with Dr. Nelson in which the thumb and first interosseous muscle was implicated, in an elderly lady, in which the paralysis subsided, and the case can be considered cured. Of course in these cases the diagnosis is very difficult. Occasionally all the muscles become implicated in course of time. He had seen several cases that seemed to be caused by a specific lesion. He would continue to use iodide.

Dr. Epstein said that this case happened to be under his care about three years ago, and although at present his general condition was improved, the disease had not made much progress. It was just about the same as when he last saw the patient. At that time he was under the impression that there was a specific history in the case.

Dr. Brookes asked whether in any of the recent writings there is any opinion expressed as to whether the lesion is central or peripheral.

Dr. Hermann said that seems to be very much in doubt. A number of authors claim that it is a central disease, and changes have been found in the anterior part of the spinal cord, in the large motor ganglia in the anterior cornua, but a number of them claim that the peripheral pathological changes are the primary trouble; there is fatty degeneration and a granular condition of the muscles. The question which is primary certainly has not been solved. The sensibility is not usually impaired; there is no anesthesia. There are trophic changes, of course; the muscles become atrophied.

NOTES AND ITEMS.

NORTHWESTERN LANCET.—The *Northwestern Lancet* has come out in a new and enlarged form with two column pages. We congratulate the editors on the evidences of prosperity. That journal has a wide field and is cultivating it diligently.

ALONZO B. PALMER, Dean of the Medical Department of the University of Michigan, died in Ann Arbor, Dec. 23, 1887. He was born at Richfield, Otsego Co. N. Y., Oct. 4, 1814 and studied medicine in New York and Philadelphia. In 1852 he entered the medical faculty of Michigan University, occupying successively the chairs of anatomy, materia medica and pathology and practice of medicine, the latter of which he held from 1860 to the time of his death. He was the author of an excellent work on the "Practice of Medicine." He was a man of strong convictions and very positive in the expression of them. He was an ardent opponent of the use of intoxicating drinks. He was a man of great ability and did very much for the prosperity of the University.

WESLEY M. CARPENTER, for over fifteen years a member of the staff of *The Medical Record* died suddenly Jan. 7, ultimo, having retired the evening before in apparent health and being found dead in his bed in the morning. A post-mortem examination showed the presence of renal disease.

Dr. Carpenter was born in Erieville, N. Y., Aug. 2, 1839. He studied medicine at Ann Arbor, Mich., and graduated at the College of Physicians and Surgeons in 1863. He practised medicine in Erieville till 1872 when he removed to New York with the purpose of devoting himself to literary work. He was an accurate and accomplished short-hand reporter, and admirably discharged the arduous duty of chief of the reportorial staff of *The Medical Record*, the most remarkable work in this line being the preparation of the full report of the meeting of the International Congress at Washington which was done under his supervision.

He was secretary of several of the leading medical societies, Clinical Professor of Medicine in the Medical Department of the University of New York. He was also editor in chief of the *Epitome of American Medicine and Surgery*.

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ORIGINAL ARTICLES.

THE IMPORT OF ENLARGED VENOUS RADICLES IN THE EPIGASTRIUM.

BY GEO. HOMAN, M. D.

[*Read before the Medico-Chirurgical Society, Annual Meeting, Jan. 10, 1888.*]

SEVERAL years ago during the physical examination of a considerable body of men my attention was quite frequently called to instances in which distinct venous markings occurred in the epigastric region, and in the course of a re-examination of the same body of men recently concluded the matter still more strongly attracted my attention.

These markings occurred in perhaps twenty per cent of all the men examined, varying in degree from a few faint traces or twigs to numerous long branches tortuous or waved, approaching in character to varices, and in more severe cases arranged to the eye in the form of a segment of a circle, the convexity being upward. These distinctly marked vessels streaming in diverging lines upward from a common margin near the lower border of the thorax gave to the eye of fancy some resemblance to the boreal aurora, a section of sunrise or saintly aureole; to a

frightened sinner of orthodox training they might suggest flames from the pit—of the stomach.

This peculiarity of appearance is explained by the arrangement of the vascular supply of the middle pectoral and upper epigastric regions. The internal mammary veins are the conduits by which the drainage of these parts is accomplished, the venous radicles descending from about the line of the nipples to the middle lower border of the thorax where they suddenly and sharply turn inward and empty into the veins just mentioned two on each side, which pass upward inside the chest cavity a little exterior to the margin of the sternum, and, after uniting into a single trunk, emptying into the innominate veins on either side of the body.

The presence of these vessels to a marked degree in connection with cases of valvular disease of the heart first drew my attention to them as having an important clinical bearing, their anatomical relation and course giving to them peculiar significance as affording probably one of the earliest indications of obstructive lesion on the right side of the heart, and in the lungs, as well as intrathoracic plethora generally.

While in near relation with the heart and directly connected with it by the innominate veins and cavæ the double turn made by the contents of these vessels in reaching the right auricle make their peripheral terminals probably more sensitive and the first to respond to any narrowing or obstruction in the passages of the heart, or pressure within the chest, than in any other vessels that appear on the surface of the body. And in this manner they may constitute, perhaps, the earliest objective symptom of the disorders suggested.

The blood delivered to the heart by these channels travels a route somewhat similar in profile to an elongated S, or "pot hook," both bends being abrupt and tending to weaken the force of the current, in addition to the impediment of gravitation. The fact that there are two veins to each artery favors the supposition that the former vessels are especially liable to obstruction and varicosity.

I am disposed to think that besides organic hindrances that may exist in the cavities and gateways of the heart, this symp-

tom may be developed to some extent by enfeeblement of respiratory power, by gluttony and drink in habitually overdistending the stomach, and by general corpulence by which the chest within and without is weighed down by a burden of fat.

THE TRANSMISSION OF MORBIFIC INFLUENCES AND DRUGS TO THE FETUS IN UTERO THROUGH THE MOTHER'S BLOOD AND THROUGH HER MILK AFTER BIRTH.

BY L. CH. BOISLINIERE, M. D.

[*Read before the St. Louis Medico-Chirurgical Society at the Annual Meeting, Jan. 10, 1888.*]

THROUGH the mother's blood the syphilitic taint is certainly the gravest on account of its dangerous consequences to the child, as it frequently is the cause of abortion, premature birth, or the death of the fetus in utero.

Here are presented some interesting points. For instance, the fetus in utero has syphilis, and presents at birth the usual manifestations, and yet the mother may never have presented any syphilitic accidents.

This position, warmly contested, has been made incontestable by the authority and observations of the higher syphilographers, such as Diday, Trousseau, Ricord, Swediaur and many others. I observed three striking cases supporting this view.

1. Father married nine years after contracting syphilis; had followed for years a strictly anti-syphilitic treatment, presented no local or constitutional symptoms, and feeling safe, married. His child was born living, and soon after had mucous patches around anus, onychia, syphilitic rubeola, etc. Got well after inunctions of mercurial ointment. The father, therefore, had latent syphilis when he impregnated his wife, who, at no time, presented any syphilitic accidents.

2. A healthy Italian woman, always free from any taint, in two pregnancies had premature labor at seven or eight months;

children dead, presented syphilitic pemphigus, etc. Being pregnant a third time, was put, from the earliest weeks of gestation, on a strictly anti-syphilitic treatment, continued, with short interruptions, to the end of pregnancy. Result, a perfectly healthy, living child. In a fourth pregnancy the same treatment and same result was obtained.

In two of the above cases the placenta presented syphilitic lesions, characterized by very great hypertrophy of the villi and their fibrous degeneration.

The reason why the mothers remained, during gestation, free of the infection, is, probably, that they had become "syphilized" through the exchange of the blood of the fetus with her own, a sort of uterine inoculation. The importance of this question is great in the interest of the mother and the child.

Another very important influence on the child in utero is furnished by the eruptive fevers, especially variola, on account of their great fatality to mother and fetus. Varioloid and discrete variola are less fatal to the fetus in utero than confluent variola, especially the hemorrhagic form. These last forms of variola are fatal to the great majority of mothers and children. These generally are dead when born, or die soon after; others live, presenting at birth variolic pustules, as has been the case with an old and very respectable creole gentleman of this city. He had, however, a marked predisposition to the disease, which he contracted twice since. However, some of the children of variolic mothers are born and live healthy. A curious fact is their non-susceptibility to vaccination. They had undergone, as it were, a process of inoculation in the womb through the mother's blood. She had variola and they had not, at birth nor after. The mother in some cases may not have small-pox, and the child in utero have it, presenting at birth well characterized variolous pustules in different degrees of maturation, as observed by Jenner, Watson and others. A striking instance of this happened a few years ago at Elleardsville, a suburb of this city, where a woman in the last month of pregnancy nursed her husband who had confluent small-pox, of which he died. The child at birth had characteristic variola pustules. The mother never had any manifestation. She was, as it were, the conductor which trans-

mitted the variolous poison to the child in her womb. By a curious anomaly, in a case of twins reported by Chantreuil, one child was born with small-pox, the other not. In an other case both twins were born with small-pox. In another case the poison reached the child through the father who, at the time of fecundation, was convalescing from an attack of small-pox. The child was born with small-pox, the mother free from it. What unknown influence is this that can reach the fetus who has no direct vascular communication with the mother? Did the spermatozoa carry along with it a microbe? What microbe, if any? In the last quoted case the mother remained free from small-pox.

Every pregnant woman should be vaccinated, as the influence of vaccination protects also the child in utero; one-half of the children are, at least for six months after birth, not susceptible of vaccination, when the mother had been vaccinated during pregnancy. It is a harmless procedure, and a very prudent one, in view of the great fatality of variola to pregnant women and the fetus in utero.

The poison of scarlatina and measles may also reach the fetus in utero through the affected mother. Abortion and death of the fetus and mother from this cause is frequent, as also from the toxemia of erysipelas and typhoid fever. This is peculiarly fatal to the child. Intermittent or malarial fever is frequently transmitted from the mother to the fetus in utero who may be observed to shake with a chill every day or every other day, its chill alternating with that of the mother in tertian fever. Quinine will cure both.

After birth, other influences may be transmitted to the child through the mother's milk, which may be altered by certain articles of food and some drugs, such as rhubarb, scammony, sulphate of sodium and magnesium, which have been, on analysis, found in the milk, as also iodide of potassium, iodoform and salts of iron, etc. Syphilitic children have been treated by putting the nurse under a mercurial course; rachitic children by administering iodoform to the nurse. Mercurial frictions to cows has sometimes salivated persons using their milk and salivated the cow also(Orfila). It has been demonstrated that neither quinine nor opium are transmitted to the child through the mother's

milk, unless she be addicted to very large doses of opium. In that case, some opium has been discovered in the milk by Baumgartner.

Several drugs can be given successfully to the child through the nurses' milk and thus better tolerated. Goats and cows have in this manner, been made the means of conveying to the child through their milk, mercury, iodine, iron and arsenic.

The milk of nurses who abuse alcoholic drinks, has been known to cause in the child insomnia, restlessness and even convulsions. A change of nurse will correct this.

The influence of disturbances of the nervous system is great in the production of milk. Excitable, irritable nurses, have frequently caused sickness in the infant, especially if nursing it after much excitement or fatigued by a long walk. Sudden deaths of children are reported after nursing by much frightened or angered mothers. The milk is then altered in its chemical character and rapidly turns acid, if exposed to the air.

If time permitted, more could be said on this very interesting question of the influence of the mother on the child either before or after its birth.

RACHITIS.

BY C. E. BRIGGS, M. D. ST. LOUIS.

[*Read before the Medico-Chirurgical Society, Annual Meeting, Jan. 10, 1888.*]

IT has been suggested to me to say a few words upon rachitis, and I hope to add to their interest by bringing before the Society, two examples of the disease in its acute stage, which is less familiarly known than are the occasional results remaining after the disease has run its course, viz., deformity of the limbs, of the chest, of the pelvis, etc.

It is distinctly a disease of infancy and early childhood. Glisson, who gave it its name about 1645, calls it rachitis or morbus puerilis. It is not a disease of great mortality in itself,

and the deformities it produces not infrequently disappear without mechanical treatment.

It has been supposed to be allied to tuberculosis, but, on the contrary, there seems to be more truth in the position that there is an antagonism between these two diseases. It is going too far to say, as some do say, that tuberculosis is a safe-guard against rachitis.

It is a disease of mal-nutrition appearing in the first years of growth, and especially affecting the bones.

It attacks children who have been subjected to unhealthy influences and who also may previously have been weakly, inheriting their weakness from debilitated parents. Impure air, dampness, cold and the absence of sunlight seem to be the most efficient agents in producing the disease. The food may be sufficient, but the child does not possess the power of assimilating it for proper ossification.

A disturbance of the digestion with diarrhea, a sweating of the head, and an unwillingness to be covered with the bed clothes are symptoms that are apt to precede a general tenderness of the body, making the child even fear to be touched. Shortly a swelling of the wrists testifies to a rapid proliferation of cartilaginous tissues at the epiphyses with irregular deposition of calcareous matter and imperfect ossification. These changes are generally without fever and extend to other parts of the body where bones are developing; notably at the junction of the ribs with their cartilages producing the double row of protuberances, projecting internally as well as externally, which is known as the rachitic rosary.

The fontanelles remain open. Dentition is delayed. The maxillæ do not develop, and the cranium is disproportionately large, while the general softening of the bones produces the projecting forehead, the lateral flattening of the chest and its increased depth, the defining and pushing down of the liver, the twisting of the arms and the deformity of the pelvis and legs, exaggerated if the weight of the body is brought to bear upon them in walking.

Bronchitis, degenerations of the various glandular organs,

laryngismus stridulus, eclampsia are the complications which are especially to be looked for and therefore guarded against.

Ritter says that of the children treated by him in dispensary practice in Prague thirty-one per cent were rachitic; and Henoeh, of Berlin, corroborates from his own experience this ratio of Ritter, and adds that the spread of the disease in large cities of Northern and Middle Europe is enormous. Bouchut cites the cities of Holland as subject to the disease from their dampness and cold.

Hillier says that of 128,656 children, out-patients in 13 years in London, 8419 were rachitic or 6.5 per cent. In some years the ratio ran up to 9 per cent.

Why do we in America have comparatively few cases of this disease?

It seems to me probable that the explanation lies in the more fortunate condition of the poorer classes of our population.

In our own city the shortness of the winters allows the children of the poorest to be much in the open air, while observation among them will show that they are generally sufficiently fed.

The clinical facilities of the Post Graduate School of Medicine have however brought under observation a striking number of cases of rachitis, and I have been led to believe that a considerable percentage of cases in this city have escaped identification, because they have been supposed to be rarer than they are, and because they sometimes appear in well to do families, where they would not be expected to occur and their causes are difficult to find.

That the proportion of cases of the disease will increase in St. Louis seems probable, if the rapid growth of its population is accompanied with the usual crowding together of the helpless poor of large cities, and if from any cause the character of our immigrants cannot be kept up to their hitherto high grade of vitality and thrift.

The first of the two patients now present, E. J., male, of apparently unmixed African descent, was born about June 1st, 1885. Was first brought to the clinic in the ensuing August for bronchitis. In November the first tooth appeared. In March 1886, a series of convulsions drew attention to a long and contracted

prepuce. After prompt circumcision there has been no recurrence of the convulsions. About this same date the sweating of the head, the age being nine months, gave us the first hint of rachitis. In November a serious attack of bronchitis supervened.

In February 1887 at the age of twenty months, the child could not stand, and the records show that cod liver oil and remedies for bronchitis were then prescribed. In May the assistant at the clinic records enlargement of the wrists, and the rachitic rosary was observed.

Today you will observe in the patient before you the characteristic condition of the wrists and the nodules at the junction of the bone and cartilage in the ribs. A slight degree of bronchitis is present. Of the teeth all the incisors and one canine of the upper jaw have dropped out, and also two of the lower front teeth. The fontanelles are closed. The ankles are swelled at the epiphyses and there is a marked outward curve just above them.

This child gives us an unmistakable case of rachitis with past and present characteristic complications advancing towards recovery, which would probably have been more rapid and more favorable if the child did not live in crowded and ill ventilated quarters.

This second patient, G. D., a girl born March 14th, 1885, is of mixed descent, the African blood predominating over the white. Her mother, a mulatress, bore to a nearly white husband one healthy child and one who suffered from rachitis, not walking until he was seven years old. He has now become at the age of eighteen, having undergone treatment, a straight limbed intelligent boy.

This girl, by a second husband of unmixed African blood, is the fifth child, born when the mother was exhausted by too frequent pregnancies, having lost one conception before and three after this birth.

The child's walking and dentition were tardy. At the age of ten months epiphyseal enlargements were marked at wrists and ankles. The rosary was clearly defined.

This child received the usual hygienical and medical treat-

ment, but it was more satisfactorily carried out than with the first case presented this evening. The family are in better circumstances, and cleanliness, warmth and pure air have been more attainable; and you will therefore observe better results.

The wrists have completely regained (the child being 2 years and 10 months old) their natural symmetry: the ankles and legs are normal, and the child walks.

The teeth, however, are still not up to the standard, the lateral incisors and canines of the upper jaw and left lower canine are only just protruding from the gums. The anterior fontanelle which was very large, extending down into the forehead and far up between the parietal bones is ossified except possibly the central point which is depressed and yields slightly to the touch; the forehead projects.

These two cases are presented as examples of early rachitis, and the good results that may be hoped for when the proper treatment can be carried out.

HEREDITY OF CANCER.—Dr. Andrews, in his recent work on rectal and anal surgery, speaks thus of the subject of heredity in cancer: "Much has been said about a hereditary tendency in cancer. We published some years ago statistics of inquiries into the ancestry of one hundred cancer patients, showing that they had almost exactly the same amount of that disease among their parents and grandparents as prevails on the average among the adults of the whole community. About the same time, Mr. Harrison Cripps, of London, showed that the parents of cancer patients in St. Bartholomew's Hospital had the same average amount of cancer among them as is found among the adults of the whole English people, according to the statistics of the Registrar General. This seems to dispose of the whole theory of hereditary transmission of cancer, whether in the rectum or elsewhere."

THE OLDBERG-WALL LABORATORY has prepared and sent out to physicians a very handsome souvenir in the form of a beautiful chromo-lithograph and wall calendar for 1888.

CASES FROM PRACTICE.

A CASE OF PERITYPHLITIS OR INFLAMMATION OF THE VERMIFORM APPENDIX.

BY E. M. NELSON, M. D., ST. LOUIS.

[Read before the St. Louis Medico-Chirurgical Society, Jan 10, 1888].

Cases of inflammation of the vermiform appendix of the *caput cecum coli* are not so rare that I can claim the pleasure of presenting here a clinical novelty, though the pathological specimen which will be presented by Dr. Dean is in itself a matter of some interest.

The history of the case is as follows, for a part of which I am indebted to the courtesy of Dr. T. G. Comstock, under whose care the patient passed, and to the statements of the father, an intelligent man, a member of the dental profession.

Saturday evening, Nov. 12. I was called to see Miss H. who was found to be complaining of pain in the lower part of the abdomen. She had not been feeling quite well for two or three days, but had entertained some friends the preceding evening, eating a late supper with them, and in the morning had eaten a late breakfast with a friend who had spent the night with her. Her bowels had moved twice during the day, tolerably freely the mother said. She felt that the pain in the lower part of the abdomen was becoming more severe, having been first noticed in the middle or latter part of the afternoon. There was no tenderness on pressure: even pretty deep pressure did not seem to cause any marked aggravation of the suffering. The temperature was elevated, and the pulse accelerated. The tongue was coated, and there was complete anorexia. I ordered hot fomentations, and gave tr. aconiti gtt. j every half hour for four doses to be followed up at longer intervals while fever continued. I also left morphia pellets (gr. $\frac{1}{4}$ each) to be used

at intervals of one hour if the pain was not relieved by the hot fomentations.

The following morning I found that she had had a restless night, not having slept any until about two o'clock, after taking one-half grain morphine. The fever was less than the night before, and the pain was much less distressing. I ordered quiniæ sulph. gr. ij every two hours, also a pill podophyl. comp., at once. At 6 P. M., I saw her again. At 5 P. M., she had had a severe attack of pain similar to that from which she had suffered the evening before. This was followed by a severe chill and high fever, 105° F. There was no swelling and no tenderness to touch. I ordered a renewal of hot fomentations and a hot enema, a febrifuge mixture containing aconite and bromide of potassium as the chief active agents and morphia *pro re nata*.

Monday morning I ordered quinine, grs. iij every two hours, and alternately with that a mixture which contained ten drops of spts. etheris nitrosi, one drop of tincture of aconite and five grains of bromide of potassium.

In the evening I learned that soon after taking the second dose of the above mentioned mixture she had vomited, and had rejected everything taken since then.

Recognizing the importance of correcting this symptom if, possible, I stopped all other medication. I gave her at once an effervescent lemonade which I have often found effective in relieving nausea and arresting vomiting, but this was retained only two or three minutes when it was rejected with what was evidently some bile. I then order one-half drop doses of wine of ipecac every hour with cracked ice ad libitum until the nausea should be relieved. There was still no distention of the abdomen, and only on deep pressure was there any evidence of tenderness.

The next morning my direct connection with the case terminated, as the young lady was anxious to have their old family physician, to whom, as he belongs to another school of medicine, I resigned the case.

On his first visit the symptoms were such as to simulate metritis, but no diagnosis was made. Twenty-four hours later the indications were those of obstruction of the bowels. Copious warm enemata were administered, and morphia was administered hypodermically to control the pain which at times was severe. During

the day however the bowels moved and flatus passed, thus disposing of that diagnosis.

Early Friday morning the patient died, and on Saturday afternoon I had the opportunity to assist Dr. D. V. Dean in a post-mortem examination, which revealed a general peritonitis, parietal and visceral, with the location of greatest intensity at the vermiform appendix. In this were found two or three hard masses, one of which was evidently a very large grape-seed. The appendix itself was intensely inflamed and this with the cecum and ileum were matted together with lymph, so that it was with some difficulty that the parts were separated.

The specimen was preserved by Dr. Dean, who will present it for your inspection.

Of course the most interesting question with regard to a case of this sort at present is whether or not a laparotomy would have offered the patient a better chance of recovery. My own conviction is that nothing would have been gained by any such operation in this case. It was not a case of perforative peritonitis, and there was not any such combination of symptoms as, it seems to me, would have warranted opening the abdomen, nor was the condition discovered post mortem one which would have been remedied or relieved by surgical interference, after the symptoms had assumed a character which would at all have suggested the propriety of operating.

CITY HOSPITAL REPORT.

BY H. C. DALTON, M. D., SUPERINTENDENT.

CASE I.—CHRONIC DIARRHEA.—PERITYPHLITIS.—INTESTINAL OBSTRUCTION.—PERITONITIS.—LAPAROTOMY.—DEATH.

C. B., æt. 32, Switzer, single, laborer. Was admitted Oct. 30, 1887.

The patient's family history was unfavorable—not pertaining to any special disease however. During the last three years he had been living in the South, and had frequently been the subject of chills and fever and dysenteric attacks. The latter trouble had persisted during the greater part of the last six months, and was accompanied by much abdominal pain. The last seizure occurred

October 29, after a free indulgence at the table, the bowels thereafter moving frequently and copiously. Gripping pains in the abdomen required large quantities of morphia for their relief.

Tenderness was marked also. His pulse was 100, hard and full, temperature 102.4° F.; tongue dry. Decubitus dorsal, with the lower limbs flexed on the abdomen. The belly was tympanitic, and in the right iliac region, an ill-defined hardness, approaching the feel of a tumor, was discovered. This was slightly more tender than the rest of the abdomen, but had been there for more than a month, the patient said. November 30, he was examined at the clinic, and the diagnosis of perityphlitis confirmed, but it was believed that pus had not yet formed, and there was therefore at that time no indication for laparotomy. Hot fomentations were alternated with the ice coil, the administration of stimulants and morphia was continued—rendered then especially necessary on account of the severe pain and collapsed condition following the clinical examination.

Stercoraceous vomiting began on the fifth, and the patient's condition was such that it was decided, upon consultation, that laparotomy, although offering scarcely any hope, was the only thing that could give him any chance. This was performed by Dr. F. J. Lutz, the median incision, below the umbilicus being used. General peritonitis was evident, with recent adhesions of the intestines. A large quantity of foul-smelling pus of fecal odor, was found in the lower part of the cavity, most abundant in the cecal region. No perforation of the gut could be discovered, and it was decided that the fecal odor was derived from the proximity of the intestinal contents, in connection with suppurative inflammation—as frequently happens in ischio-rectal abscesses.

The seat of obstruction was found to be a portion of the small intestine bent sharply upon itself, and held so by the agglutination of its adjacent walls, rendering the canal impervious. The adhesions were broken up and the normal calibre of the bowel was regained.

For the double purpose of cleanliness and of stimulation from the marked prostration, the abdominal cavity was then flushed with a large quantity of hot water. Under its influence the pulse revived somewhat, but it had no such happy effect as is reported in connection with other cases,—possibly on account of the extreme depression present. The guts, while out of the cavity, were en-

veloped in cloths wrung out in hot water. The wound was sewed with interrupted silk sutures embracing the peritoneum, muscles and tegumentary tissues.

The patient did not rally, although various means of stimulation were used to bring about such a change. He died within an hour after the operation.

CASE II.—ABSCCESS OF THE LIVER.—TREATED BY IRRIGATION AND INJECTION OF IODOFORM OIL.—RECOVERY.

C. G., male, æt. 29, American, single, laborer, was admitted to the hospital December 27, 1887.

He stated that six weeks previously without apparent cause, a severe sharp pain began in the right hypochondriac region, and continued to return intermittently thereafter up to the time of his entrance. It did not affect either shoulder. About the same time he first noticed, in the infra-axillary region of the right side, a swelling, which grew constantly larger and more painful. At the time of the examination, this tumor, almost the thickness of a fist, extended from the inferior angle of the scapula a distance of 12 cent. ($4\frac{3}{4}$ inches), its long diameter being parallel with the ribs. Its anterior end was red and shiny and gave a fluctuating feel.

The whole pitted on pressure. The liver projected 7 cent. ($2\frac{3}{4}$ inches) below the ribs. At this stage of examination it was impossible to tell whether the seeming abscess came from the pleural cavity or thoracic wall. An exploratory puncture led down to denuded rib (the ninth), through the ninth interspace into a circumscribed cavity in the pleura, thence the searching finger found its way through a perforation in the diaphragm into the right lobe of the liver, in which was a pulpy-walled cavity the size of a large orange. Three inches of the ninth rib were then resected, the canal into the liver was enlarged, and the abscess cavity was washed repeatedly with hot water, followed by 1-1000 bichloride solution. This was repeated daily until all the *debris* coming from the softened walls of the abscess could be gotten rid of—about a week—when a thorough cleansing with bichloride was followed by filling the cavity with a three per cent emulsion of iodoform in boiled linseed oil, according to the method of Dr. Frank Glasgow. The opening was next sealed with a compress of oakum saturated in the emulsion.

Convalescence, though established by the first operation, was hastened by the next procedure; the patient's temperature did not again rise above normal, and when the dressing was next removed, a month later, the parts had healed.

His general condition too, was excellent. He was discharged, well, January 30, 1888.

MEDICAL COLLEGE AT SHANGHAI, CHINA.—From communication to the *Medical News*, Nov. 5, from H. W. Boone, Vice-President of the Medical Missionary Association of China, we learn that the medical department of St. John's College at Shanghai, has hospitals for natives with about 250 beds and an out-patient department in which are treated annually some 23,000 or 24,000 patients and affording good facilities for clinical teaching. These institutions are supported by their own earnings and by local charity. They own the land and building for the medical school, have the nucleus for a medical library and museum. There are four lecturers and one tutor and a small class of medical students. Candidates for medical instruction are required to pass a preliminary examination, after which, if satisfactory, they are admitted on probation for three months, at the end of which time they are subjected to a second examination, and if they do not show aptitude for the study of medicine they are not allowed to continue in the class. Would that such a system were in vogue here. If proficient, they sign an agreement to stay and study for four years. The first two and a half years they are in the college; the last year and half they act as internes in St. Luke's Hospital. They then pass their eighth and final examination and are free to go out and practice medicine.

For a few years to come the college needs about \$800 a year for running expenses. When the graduates begin to earn a living as physicians, the officers of the institution believe that the classes will rapidly increase in numbers and make the school self-supporting. An appeal is made to the medical profession to help in this matter, to give the benefits of medical science to the people of that great nation, to help on a grand scale to alleviate the vast amount of suffering among the three hundred millions of China. Contributions in money or medical books for the library may be sent to Rev. Dr. Wm. S. Laryford, Secretary of the Board of Missions, 22 Bible House, New York City, N. Y.

EDITORIAL.

NATIONAL QUARANTINE.

It is a generally prevailing sentiment, one of those inherited traditions which so often influence us instead of intelligent, considerate opinions, that quarantines are an affair with which only seaports have any interest or responsibility, that inland municipalities and states, and inland health boards are concerned only with the sanitary condition of their own territory; and of course it goes without saying that only within their own territory can they carry into effect any measures for the control of disease and for the protection of the public health.

A moment's consideration, however, will show that this, like many another prevailing impression is wholly erroneous. Not only the seaport cities, through which the commerce of our country with foreign countries is carried on, and through which the thousands of immigrants yearly enter our country, are exposed to danger from the admission of those carrying in their persons or in their clothing or household stuff the germs of infectious disease, but every inland town and village in the country, especially those of the great west and northwest shares the risk. In fact, in many cases the danger is far greater in the remote villages and cities than in the ports of entry, for in the latter the immigrants stay as little time as possible, and it is not until they reach their ultimate destination that they unpack their chests and boxes which may have been brought from places where small pox was prevailing, which not improbably may contain garments or bedding last used by those sick or dying from that or some other equally dangerous disease.

Therefore, the question of quarantine defence is seen at once to

be one in which the whole country, the inland as well and as much as the maritime cities and states are vitally interested.

As we are all aware, for three years past that eastern scourge, the Asiatic cholera, has prevailed with more or less severity in Europe, and last fall the disease reached our own coasts, having been brought in two different steamers, the "Alesia" and "Brittania." The responsibility of protecting the whole country from the threatened danger devolved upon the health department of New York City; and all expense involved in the measures adopted for the common protection were defrayed by the city and state of New York.

The attention of the public has been repeatedly called to this subject during the last few years by such advanced sanitarians as Dr. John H. Rauch, secretary of the Illinois State Board of Health.

During the time when the passengers from the "Alesia" and the "Brittania" were detained upon the quarantine island of the port of New York, a committee of the College of Physicians and Surgeons of Philadelphia was appointed to investigate the efficiency of our quarantine arrangements for the exclusion of cholera and other epidemic diseases.

This committee made a thorough investigation concerning the quarantine stations of New York, Baltimore and Philadelphia, as the result of which they came to the conclusion that "the quarantine establishments at Philadelphia and at Baltimore fail in the most essential requisites of the necessary number of properly equipped buildings for the isolation and observation of a large number of immigrants;" and they also found at the New York station that the buildings were inadequate, provision for the comfort and cleanliness of detained immigrants greatly lacking, the attendance inefficient and regular supervision wanting, as a result of which grave defects several hundred immigrants were detained upon the quarantine islands for fifty-eight days, whereas if proper arrangements for isolation, disinfection and observation had been made, all but a very few of these passengers might have been re-

leased from quarantine in eight days without any risk to the country.

The committee above referred to, having made its report to the College of Physicians and Surgeons, was continued, and authorized to prepare an address to the medical societies of the country, and seek their cooperation in an effort to secure, during the present session of Congress, such action as shall provide for the early adoption of a uniform and efficient quarantine of the exposed ports under the direction of the general government, all the necessary expenses to be defrayed from the national treasury.

This address is so ably prepared, and contains so much that is of interest to us all as physicians and citizens that we have presented it in full to our readers in this number of the *COURIER*, together with a portion of the report of the committee, and we would bespeak for it a careful and attentive perusal and consideration, and wherever possible we trust that medical societies will take such action as may be practicable to secure the object desired.

INFLAMMATION OF THE VERMIFORM APPENDIX.

It has long been noted that remarkable phenomena seldom occur singly. It is a superstition among railroad men that when one serious disaster occurs there will surely be one or two others. In our term of service as hospital interne in the Cincinnati Hospital six cases of fracture at the base of the skull were brought in while not a single case of that injury had come into the wards during a year or two preceding.

For the last two or three months there has appeared an unusual number of papers with relation to inflammations in and around the cecum and especially the vermiform appendix.

In connection with the recent case reported before the St. Louis Medico-Chirurgical Society and published on p. 203 of the present

issue of the *COURIER* it may be of interest to our readers to call attention to some of these papers.

Going back a little farther than the period just referred to, a valuable paper was read before the Association of American Physicians by Prof. R. H. Fitz, published in the volume of transactions of that society and also in the *Am. Jour. of the Med. Sci.*, for October 1886, in which the subject is exhaustively discussed. Prof. Fitz states that in a majority of the fatal cases of the disease known under the several names of typhlitis, typhlo-enteritis or perityphlitis, the essential pathological element is an ulcerated and perforated appendix.

In the *Boston Med. and Surg. Jour.* Jan. 12, 1888, Dr. H. F. Vickery reports four cases, all of which he had met in private practice during the last two years, and all of which occurred in males.

He states that this disease attacks four times as many males as females, and three-fourths of its victims are less than thirty years of age. "In children, and exceptionally in adults, prodromata may last for days or even months, consisting of anorexia, vomiting, irregularity of the bowels, more or less pain, felt chiefly in the right inguinal region, and a local swelling. The attack is usually sudden. There is a violent pain in the right groin, perhaps associated with a chill or with collapse. There may be no fever but usually the temperature ranges from 100° to 102°F. Frequently there are vomiting and hiccough. Constipation is to be expected, but we may see diarrhea or dysentery. It would not seem unnatural that the lower portion of the bowels should empty themselves in the early part of the attack. If, however, later on in the disease, there should be copious dejections, it would suggest that the cecum proper had thus far escaped. From its incipency, appendicitis is accompanied by localized tenderness; and by the third day we may expect more or less dulness on percussion and a sense of resistance. If internal examination prove negative in its results digital exploration of the rectum should never be omitted."

"When these signs of inflammatory exudation are found, it is usually advised to insert an aspirating needle, in order to determine whether pus is present. In view of the frequent failures to find pus, when it exists, by this means, I believe that laparotomy should be immediately performed, provided the eliminative diagnosis has been a careful one. Fecal accumulations in the cecum tend to form a more elongated, vertical, nodular tumor, perhaps accompanied by a similar distention of the transverse colon, and seldom associated with fever or with so marked signs of local inflammation. In women, pelvic troubles must be considered, and a vaginal examination made. Hematocele has been mistaken for appendicitis and *vice versa*. Internal as well as external hernia should not be forgotten, nor in children the possibilities of intussusception. * * *

"The earliest treatment of the case can be described as an effort to limit the suppurative inflammation to its original seat. The patient must therefore maintain absolute physical quiet, have the most simple liquid food in small amounts, and not merely his pain but the peristaltic action of his bowels must be subdued by opium pushed to incipient narcotism. Poultices, or if these be too heavy, hot compresses will also be grateful to the patient and contribute somewhat towards the desired end."

In regard to the question of surgical operation for the removal of pus, as recommended by Dr. Vickery, it may be noticed that in only one of the four cases which he reports was any surgical interference attempted, and in that case it was ineffectual, for while an incision was made and an attempt to evacuate the abscess, the patient's condition demanded a cessation of the operation before pus was obtained, and between two and three weeks later the abscess burst spontaneously into the rectum, the patient making a complete recovery not in consequence of the operation but with that as an additional complication. The only fatal case of the four was one which was veiled in a good deal of obscurity, as the doctor says,

"Trouble in the cecal region was considered, but the evidence of its existence seemed wanting."

At the meeting of the Philadelphia County Medical Society, Dec. 14, 1887, three papers were presented on the subject of pericecal inflammation (*Med. and Surg. Reporter* Jan. 7, 1888). Dr. J. H. Musser, in discussing the morbid anatomy, endorses the use of the word appendicitis as indicating that in a majority the trouble originates in it if it be not confined to the appendix.

Dr. William Pepper spoke of the diagnosis of the affection. He calls attention to two classes of cases. In one the affection is more limited to the walls of the cecum and the pericecal connective tissue, and the appendix is affected to a comparatively slight degree, the vast majority of such cases terminating in resolution. In these cases he thinks that perforation has not occurred. They are marked by pain as the initial symptom, not intense, not accompanied with symptoms of collapse, though there are often nausea and vomiting and elevation of temperature gradually increasing till decided fever is present and considerable acceleration of the pulse. There is excruciating tenderness in the right iliac fossa, a sense of fulness and induration, not rarely with dorsal decubitus and flexed thigh with constipation, possibly preceded by one or two irritative movements during the first day. In proportion as the induration and swelling are early and marked, it has seemed to him probable that the appendix is not seriously involved, but the affection is chiefly an inflammation of the walls of the cecum and pericecal connective tissue.

If these cases are treated by absolute rest, abstinence from food, and absolute avoidance of interference with the state of the bowels, by local depletion, counter-irritation followed by application of ice-bag or warm fomentations, and the internal administration of opium and mercury commenced early, the vast majority terminate in resolution and complete recovery.

In the second class of cases the patient may have been in apparent good health, but there has been a catarrhal inflammation and the

fecal matter which is present in nearly every healthy appendix, is no longer able to circulate and escape, because the outlet is partially closed by the swelling of the mucous membrane; the pent up secretions and the irritating fecal matter excite more serious inflammation in the walls of the appendix; ulceration is established and finally perforation occurs and the symptoms of the attack begin. He regards this tendency to closure with the accumulation of secretions and of fecal matter as the essential cause of the more serious type of inflammation and perforation.

The symptoms are intense pain, sometimes so severe as to cause collapse, occasionally such as to be followed by death in a few hours. Then come signs of rapidly developing peritonitis, frequent pulse, marked tenderness, tympanites, without induration and sometimes with no fulness in the right ileo-cecal region. There, may be only moderate febrile reaction for one, two or three days with continued, moderate pain simulating an ordinary catarrhal attack with intestinal colic. For two or three days the symptoms may delude the attendant into the belief that the patient is not seriously ill, but after a time there are the symptoms of rapidly spreading peritonitis, and the case terminates in death from exhaustion in five to ten days.

Dr. Pepper emphasizes the importance of examination per rectum as the most important means of diagnosis in this class of affections. If such examination determines a fulness in the right side of the roof of the pelvis, it indicates an amount of exudation which will end in abscess, and is a strong indication for operation. He also suggests as a possibly valuable means of diagnosis puncture with a curved exploring needle introduced through the rectum in cases where the finger detects a sense of distention of the right side of the pelvic roof. In many of these cases he says there has seemed to be an unusual abundance of urine and increased frequency of micturition, the former associated with the absence of vomiting. The most marked symptoms in a majority of cases, he says, have been the intense pain at the onset of the attack, the development

of the fever, the acceleration of the pulse, the distention of the abdomen, the pain referred to some point in the ileo-cecal region, the comparative rarity of vomiting, the absence of induration and tumor, possibly the detection of fulness or induration in the roof of the pelvis by rectal examination, the frequent micturition with abundant urine, the pain possibly radiating in the direction of the genitals.

Dr. Thos. G. Morton considered the treatment. The treatment of the simple inflammatory disorder before the formation of pus should consist of rest in bed, restriction of diet to nourishing liquids, hot fomentations or poultices, frequently renewed, perhaps local depletion, and possibly hypodermatic injections of morphia to control pain; whilst the bowels should be kept open and free from accumulation of gas and feces by the administration of salines and enemas—perhaps with the addition of turpentine to the latter.

Prompt resolution should take place in cases which are not to go on to pus formation; and very long continuation of symptoms, or relapses or recurrences would be strong indications for surgical interference. Intense pain would often be as positive an indication for operative relief as for morphia.

When pus has formed he would regard operative interference as imperative. He says: "I should operate whenever the diagnosis of pus had been made—occasionally even without positive diagnosis. The aspirating needle, he says, should never be used, being unreliable and unsafe. The abdominal incision should be lateral not median, beginning at a point an inch above Poupart's ligament and to the outer side of the right linea semilunaris and continuing vertically upward about four inches, and carried downward until pus, cecum, or peritoneum encircling that organ be reached. If pus be found, the containing cavity should be washed clean. The appendix is almost always the seat of trouble, and he would favor ligating it as close to the cecum as possible and then excising it. Cecal perforations should be closed with Lembert sutures, ulcers

which have not perforated should be turned into the bowel by the same means.

If the general abdominal cavity have not been involved, the abscess cavity or cecum should be gently curetted, washed out with a one to one-thousand bichloride of mercury solution, a large glass or rubber drain introduced, and the abdominal wound closed around it with silk sutures, and a dressing superimposed.

If there be general peritonitis of recent development he would thoroughly wash out the abdominal cavity with hot (105° to 110°) distilled water or one to ten-thousand bichloride of mercury solution, and cleansed with sponges, and the foreign body, if that be the source of trouble, searched for and removed. If more advanced peritonitis be discovered, he would withdraw the intestines, separate adhesions with the finger or knife during the cleansing before returning them to the peritoneal cavity. When there is general peritonitis a glass drain must be carried to the bottom of the pelvis and kept in working order by means of absorbent cotton ropes acting by capillarity.

These papers of which we have thus given abstracts, indicate the present status of medical thought which has been directed more than usually to this subject of late. The tendency among modern progressive surgeons is strongly in favor of early surgical interference whenever the symptoms indicate the existence of perforative inflammation. The most important line of investigation now is to be directed to the determination of more positive means of early diagnosis.

EXECUTION OF CRIMINALS BY ELECTRICITY.

Last winter a commission was appointed to investigate and report to the New York Legislature concerning the most humane and practical mode of executing criminals condemned to death. This committee has recently presented its report in the form of a pamphlet of one hundred pages.

They first prepared and sent out to a large number of judges, district attorneys, sheriffs, and physicians, a circular asking opinions as to the present method of punishment and as to some more humane method. Suggestions were also asked for regarding the disposition of the body of the person executed with a view to increasing the effect of capital punishment as a means of deterring from crime. Some two hundred answers to this circular were received, and after a due consideration of these and much other study and investigation, the committee reported in favor of electricity. They suggest that all executions take place at one of the three state prisons, where suitable apparatus shall be provided. The plan which they propose is to have the criminal placed in a chair having metallic plates at the head and foot rests connected with electrodes from a powerful electrical apparatus.

Various changes in the laws concerning criminals condemned to death are suggested.

The report recommends that in every case death shall be inflicted by passing through the body a current of electricity of sufficient intensity to cause death, and the passing of the current must be continued until the convict is dead. The warden of the prison must be present at the execution, and must invite the presence of a Justice of the Supreme Court, the District Attorney, and Sheriff of the County in which the execution was had, together with two physicians and twelve reputable citizens. Besides one, or at the most two clergymen, and seven assistants or deputy sheriffs, no other persons than those mentioned shall be permitted to be present.

A post-mortem examination is to be made immediately after the execution by the physicians present at the execution, and their written report of the examination is to be annexed to the certificate signed by all the persons witnessing the execution, that the sentence was duly carried into effect in accordance with the requirements of the law.

The body is then to be turned over for dissection to some public or incorporated medical college within the state, or it may be

buried in the grave yard or cemetery attached to the prison, with a sufficient quantity of quicklime to promptly destroy it, but in no case shall the remains be delivered to any friend or relative. No account of the details of any such execution beyond the statement of the fact that the convict was on the specified day, duly executed according to law at the prison, shall be printed by any newspaper.

In the senate of the state of New Jersey also a bill of similar tenor has been presented, providing that the death penalty shall hereafter be inflicted by electricity. This act, besides the method of execution, makes other important changes in the existing law. It provides that in sentencing a criminal the judge shall name the week during which the execution shall take place, not to be less than four nor more than eight weeks from the date of sentence, and within the week so designated the sheriff of the county shall select a day not previously to be made known to any one except the persons allowed to be present at the executions. These shall be the sentencing judge, the prosecuting attorney, two physicians, twelve reputable citizens, two clergymen, (if requested) and seven assistant sheriffs. The corpse, subsequently, must be buried with enough quicklime to consume it, or be given up for dissecting purposes. Newspapers are prohibited from reporting the execution further than a bare mention of the event. The electrical apparatus shall be fitted up at the State Prison, to be loaned to the counties as required.

MORTALITY IN ST. LOUIS IN 1887.

According to the summary of vital statistics issued from the Health Office the total mortality in this city during the year ending Dec. 31, 1887, was 9,155 as compared with 8,268 during the preceding year and 7,490 in 1885.

The population being estimated at 420,000 the annual death rate per 1,000 during the year was 21.8

The total deaths from zymotic diseases numbered 2,549; from constitutional diseases, 1,595; from local diseases, 3,791; from developmental diseases, 711; deaths by violence, 506; unknown, 3.

Of the deaths from zymotic diseases there were 40 from measles, 48 from scarlatina, 927 from diphtheria, 185 from croup, 12 from whooping-cough, 116 from typhoid fever, 30 from cerebro-spinal fever, 304 from various forms of malarial and simple continued fever, 64 from puerperal fever, 324 under five years of age and 153 older from diarrheal diseases, 24 from erysipelas, 53 from pyemia and septicemia, 23 from syphilis, 171 from inanition, 68 from alcoholism, and 4 from other zymotic diseases.

Among the deaths from constitutional diseases there were 20 from rheumatism and gout, 164 from cancer and malignant tumors, 829 from phthisis, 392 from marasmus, tabes mesenterica and scrofula, 58 from hydrocephalus and tubercular meningitis, 132 from other constitutional disease.

There were 340 deaths from bronchitis, 568 from pneumonia, 268 from other diseases of the respiratory organs, 396 from diseases of the circulatory system, 255 from meningitis and encephalitis, 437 from convulsions and trismus, 56 from heat stroke, 117 from apoplexy, 406 from other diseases of the brain and nervous system, 164 from cirrhosis of the liver and hepatitis, 549 from enteritis, gastritis, gastro-enteritis and peritonitis, 124 from Bright's disease and nephritis.

Accidents of pregnancy and child birth caused death in 20 cases, while 411 deaths resulted from congenital debility, malformations, etc., and 280 persons died of old age.

Surgical operations resulted fatally with 20; accidents carried off 338, and 2 suffered the extreme penalty of the law, while 90 committed suicide and 46 were victims of homicide.

With regard to age there were 3,795 under five years of age or 41.45 per cent of the whole number, there were 597 who were 70 years of age or older, 5,064 were males and 4,091 were females;

3,263 were married and 5,892 were single; 8,338 were white and 817 were colored.

MORE CONCERNING THE HENDON COW DISEASE.

In the February *COURIER* we called the attention of our readers to the result of Prof. Crookshank's investigations with regard to the Hendon Cow Disease, which had led him to the opinion that this disease was a veritable outbreak of true Jennerian cow pox and not bovine scarlatina, as had been thought.

Prof. Crookshank has been carrying on his investigations further by microscopic examination of organisms found in the secretions and tissues of diseased animals, by inoculations, and careful study of the symptoms developed.

In a paper read before the Pathological Society Jan. 17, 1888, (*Brit. Med. Jour.* Jan. 21, 1888) he details these observations and closes with the following summary:

1. The nature of the contagium of scarlet fever is unknown.
2. The micro-organism regarded by Dr. Klein as the contagium is the *streptococcus pyogenes*.
3. *Streptococcus pyogenes* is found sometimes in company with *staphylococcus pyogenes aureus* as a secondary result in scarlet fever and many other diseases.
4. A streptococcus was first observed in scarlet fever by Crooke, later by Loeffler, Heubner, and Bahrdt; but its exact relation to scarlatina and its undoubted identity with the streptococcus from pus and puerperal fever was definitely established in 1885, by Fraenkel and Freudenberg.

To these I would add the following statements:

5. Both the Wiltshire and Hendon cow diseases were called cow-pox by people on the farms.
6. Both diseases correspond in their clinical history.
7. The ulcers on the teats correspond in naked eye and in micro-

scopical appearances, and the latter "vividly recall the appearances of cow-pox."

8. Calves inoculated from the discharges of the ulcers are similarly affected.

9. Post-mortem examination of such calves, or of calves inoculated with streptococci isolated from scarlet fever cases, show similar appearances.

10. The post-mortem appearances in such inoculated calves are the result of septicemia.

11. There are no specific visceral changes in cow-pox apart from complications or coincident affections.

AMATEUR PHOTOGRAPHY.—Within the last few years the invention of the dry-plate process of photography has rendered possible the taking of excellent photographs without the expensive outfit of the professional photographer. To no one is this fact of greater practical interest than the physician and surgeon, who can thus secure accurate representations of morbid appearances and of pathological specimens which were otherwise unattainable. However a serious obstacle in the way of obtaining satisfactory results was found in the difficulty of securing proper illumination of the subject in the physician's office. Dr. H. G. Piffard has devised a method of utilizing magnesium powder which entirely obviates this difficulty. He places the patient in position, and obtains the focus in the usual manner by daylight or by means of a candle or lamp held near the patient. The plate holder is placed in the camera, the slide withdrawn, the room absolutely darkened and the lens uncapped. A tuft of gun-cotton weighing seven or eight grains is spread out in a thin layer on any metal surface as a stovetid or tin plate. Ten or twelve grains of the magnesium powder are then evenly sprinkled over the cotton, and this is adjusted by the side of the camera and slightly in advance of the lens, care being taken not to bring it within the view angle of the lens. This is arranged in place before the room is darkened. All being in readiness a lighted taper is applied to the cotton and an instantaneous flash takes the picture. The lense is capped, the slide returned to its place in the plate holder and the plate is ready for development.—*Jour. of Cut. and Genito-Ur. Dis.* Feb. '88.

BOOK REVIEWS AND NOTICES.

ANNUAL REPORT OF THE SUPERVISING SURGEON GENERAL, U. S. M. H. S., for year 1887. Washington Government Printing Office, 1887; 8vo.; pp. 308; paper.

The interests involved in the matter contained in this report are two-fold. As citizens we are interested in the statistical data contained in the first pages of the report in the statement of relief furnished which was as follows:

Patients relieved,	-	-	-	45,314
Treated in hospitals,	-	-	-	13,084
Treated in dispensaries,	-	-	-	32,230
Days relief in hospitals furnished,	-	-	-	331,701

This is the largest number of patients furnished relief in any year since the organization of the service.

The receipts from all sources during the year were \$570,227.62, and the expenditures \$461,336.17. There was expended in addition to this the sum of \$77,817.61 from special appropriations for repairs, furniture, heating and ventilating apparatus, etc.

As physicians we shall probably glance carelessly over the first one hundred pages of the volume, and find our interest excited in the report of "Selected Cases from Hospital Practice," and the "Reports of Fatal Cases with autopsies," some of which are of considerable value.

RECTAL AND ANAL SURGERY, with a Description of the Secret Methods of the Itinerants. By EDMUND ANDREWS, M. D., LL. D., and E. WYLLYS ANDREWS, A. M., M. D., Chicago, W. T. Keener, 1888, 8vo., pp. 111, cloth. (St. Louis, J. H. Chambers & Co.).

Dr. Andrews has given us in the present volume an excellent little manual for the treatment of diseases of the rectum and anus. We some time ago called attention to the excellent service rendered to the profession by Dr. Andrews in the exposé which he made of the method of treatment of hemorrhoids by the injection of carbolic acid. In this volume he makes known what he has

learned of the methods of the itinerants in the treatment not only of hemorrhoids, but also of fistulæ, irritable ulcers, etc. He gives the results of his own observation, and compares the various methods of treatment, drawing conclusions which seem to us to be well founded and satisfactory.

Dr. Andrew's style is generally pleasing and effective, but loses force occasionally by a looseness of expression which might easily be corrected. For example at the top of page 24 he speaks of "about 3,304 cases." If that is the exact number why depreciate its exactness by prefixing the word "about." If it is not exact, why give the final digit as "4" implying exactitude instead of "0," which would make the round number without claim of exactness. Again at the bottom of the same page, does "about four" fatal cases mean three or five, or just four? It is too much like the Indians counting, "one, two, three, many."

There are a good many typographical errors which should be corrected in a new edition which, we doubt not, will soon be needed, as the surgery of the lower bowel is beginning to receive the attention from the regular profession which its importance demands, and this little volume is one which will have a good influence in guiding surgeons to correct principles of treatment.

WM. WOOD & Co. expended over \$4,000 in the preparation and distribution of the reports of the meetings of the International Medical Congress held at Washington last fall. These reports were issued gratuitously in English, French and German to any medical journal in the world on application, and a large number of medical editors, ourselves among them, availed themselves of this liberality and courtesy and made use of these advanced slips in preparing their reports of the Congress.

TWINS AND TRIPLETS.—In the twenty-five years ending with 1886 there were registered in Massachusetts 1,016,178 births. In this number there were 9,028 pairs of twins and 109 cases of triplets. This gives a ratio of one case of twins in every 113 labors, and one case of triplets in 9324 labors. So that the common statement that one case of twins occurs in 100 labors, and one case of triplets in each 10,000 labors, is not far from correct.—*Boston Med. and Surg. Jour.*, Dec. 22.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated meeting, January 19, 1888. DR. COLES, President in the chair.

Dr. Boisliniere gave a résumé of the paper read at the last meeting.

Dr. Engelmann.—I was especially pleased with the idea expressed by the doctor in regard to treatment during pregnancy. That of course is the course to be followed when the difficulty is discovered, but in many of these cases in which the trouble has persisted for weeks or months during pregnancy it is not recognized; it comes upon us suddenly, we are called to the patient after the attack has commenced or during labor. Under other circumstances a warning is given by the sensations of the patient, pains in the head, obstruction of vision, dimness of the vision. I believe that then the course suggested by the doctor is unquestionably the correct one: we must overcome those symptoms, overcome the albuminuria, and if this is not possible, bring about premature labor with the first threatening. Of course individual cases may cause us to deviate from the usual plan, but in the main where the symptoms are recognized during pregnancy we must overcome them, and if an explosion occurs, induce premature labor and deliver at once. The cases which I have seen lead me to believe that this condition can be overcome during pregnancy if treatment is inaugurated at once. I remember one case which a colleague asked me to see and attend during her confinement, which was to come off several months subsequently. He asked me repeatedly if I had called to see her. I had no particular reason for calling upon her, and being busy neglected to do so. I was called in haste one evening, and I believe that on the evening before Dr. Coles had been sent for as I was out, or they did not know where to find me. The lady had symptoms of malarial trouble. She was a young

lady in her first pregnancy: although she had never been especially strong, she was in fair health. She had been out to a dinner and I think drove home in a thin dress. It had turned cool and she had a chill, felt very uncomfortable and suffered considerably. She certainly had taken cold and there were evidences of a bilious condition with some feverishness, but upon the yielding of this condition to calomel and quinine, there was a dimness of vision, a cloudiness and haziness of sight, headache and a fulness of the head. An examination of the urine revealed an abundance of albumen, in fact the urine in the test tube was solid. The case was so striking, and I looked upon it as so desperate that I sent for the husband and for Dr. Robinson. We were agreed as to the course, and I don't think there is much question regarding the course of treatment to be adopted, to attempt to overcome the disease and with the first threatening symptom to induce premature labor. The child was then living though there was a feeble heart beat and feeble motion. It was too young (I presume in the seventh month) to induce artificial delivery for the sake of saving the child, consequently the mother alone was in question, and in that condition her life was of course first to be considered. The treatment was that which I presume would be generally followed; the use of digitalis, iron and salts for the bowels. Day by day the urine was examined night and morning and it gradually cleared of the albumen, the symptoms improved and the doses of iron especially were increased until the urine was absolutely clear and the patient was well. All the symptoms disappeared, and a little while before the proper time labor was inaugurated and a dead fetus was born. The child had evidently been dead for some time. Now the only question in this case, it seems to me, was, should an attempt have been made to save the child's life by inducing premature labor at an early stage, in the very beginning when we found the child's heart was feeble?

Dr. Glasgow.—Did the patient take any quinine?

Dr. Engelmann.—On the first day I think she took ten grains and some calomel; the next day perhaps five then three, in all from 20 to 25 grains. Now the course to be pursued with regard to the mother seems to me to have been very clear, because all three of us agreed that we should overcome the renal disturbance and on the first evidence of eclampsia induce premature labor, and it was to be hoped that the life of the child could be preserved. If the mother improved we hoped that the child would strengthen, but it seems

not to have done so. It must have been poisoned by the same condition which threatened the mother's life. But it was a successful case—the treatment of a case in which there was a very large quantity of albuminuria in pregnancy, which passed off completely before the emptying of the uterus, and labor was perfectly normal. Of course the child was small, as it died before full term.

Dr. McPheeters.—Did you call that a case of threatened eclampsia—there was no convulsion in the case?

Dr. Engelmann.—It was a case of threatened eclampsia. We had reason to expect it every moment; there never was the slightest evidence or sign of it, but we were expecting it every moment. It was as ugly a case as I have ever seen, and it yielded charmingly to treatment. There was a steady decrease in the quantity of albumen and epithelium; there was an improvement day by day. The patient was absolutely well of the trouble for weeks before labor came on, and the labor passed off without any irregularity. The second case was one not so marked, but there was more edema of the legs and puffiness of the eyes, which also existed in the first case in a slight degree, but although the general evidences of albuminuria were more marked, the urine showed a much less serious state of affairs. This patient summoned me on account of the swelling of the legs which troubled her. It was her second pregnancy. The first pregnancy and also labor had passed off without any unusual symptoms. In this second pregnancy, it must have been between the sixth and seventh month, the evidences of renal disturbance appeared, a puffiness of the eyelids and swelling of the legs which made it somewhat uncomfortable for her to wear her gaiters. The treatment in that case was similar, digitalis, iron and salts and large doses of muriated tincture of iron. That patient improved slowly so that in the course of a month no trace of the albumen was left, and microscopically the urine was normal when labor came on a few days previous to full term, and although rather small the child was living. What the previous condition of the patient had to do with the size of the child I don't know. I presume in this case the presence of the external symptoms caused her to seek treatment at an early period in the trouble, and enabled me to relieve her. In the first case the symptoms were not sufficient to call her attention to the abnormal condition, and if she had not taken the chill by taking cold while driving home, I presume it would have been some days or weeks before her condition

would have become known, and by that time it is probable it would have been too late. As it was I think it caused the death of the child.

Dr. Coles.—In the last case did the albumen disappear and never recur?

Dr. Engelmann.—It never returned. Of course I was interested in this point and examined in both cases, and it did not appear. The patient who had the larger quantity of albumen in her urine is pregnant again, and is in much better health because of the tonic treatment which has been adopted some time after her first confinement, and I hope everything will pass off better this time.

Dr. Glasgow.—Was there any history of malaria in this last case?

Dr. Engelmann.—It was her first child; she had been married only about a year; she was an only daughter, and was somewhat pale and anemic. I do not think there was any history of malaria. I presume you can say it was one of those ugly cases constantly needing stimulating.

Dr. Boisliniere.—How was the second?

Dr. Engelmann.—That patient was a slightly older lady; she had always been in fair health, in better health, I may say, than we ordinarily find in women who have had children and household cares. In both cases I was ready at any moment with the occurrence of the first convulsion to induce artificial labor; and it should have been done, because it was at a period of pregnancy when the lives of the children could have been saved.

Dr. Coles.—I would like to ask you if you have had an opportunity to observe the length of time which albumen will remain in the urine after a woman has had eclampsia—as to the subsidence of the albumen.

Dr. Engelmann.—I know nothing in regard to that, because in the few cases that I have had the treatment has been somewhat similar. I relied upon iron and digitalis, and the albumen disappeared, at least it did not remain in any large quantity. In the one case it disappeared in four or five days after confinement, and in the other almost immediately after. Its disappearance seemed to me to be the result of the emptying of the uterus rather than the treatment.

Dr. G. A. Moses.—The subject which is under discussion is one that has always been of intense interest to me. I have had the

misfortune to see a very large number of cases of eclampsia both antepartum and puerperal.

Dr. Engelmann has justly observed that we unfortunately do not see these cases of convulsions until the height of the attack. It has been my practice for a great many years, whenever I am employed in a case of confinement sufficiently advanced, and particularly if the patient is primiparous, to examine the urine methodically from time to time for the purpose of discovering as soon as possible any error of nutrition relating to the renal functions. I think we are still in some doubt as to what is the real cause of the convulsion; I mean the etiology of them. The theories that have been adopted from time to time have been unsatisfactory, at least in a great many instances. In the first place it is of the utmost importance to recognize the extent of the renal inflammation, whether it is acute or chronic. The case Dr. Engelmann has related to-night was evidently one of acute nephritis produced no doubt by the puerperal condition. In the puerperal condition there is a peculiar effect produced upon the vaso-motor nervous system, predisposing to nervous explosion which we call convulsions, and I have seen these occur without any evidence that could be detected or any suggestion whatever of albuminuria up to the time of the explosion. I am satisfied Dr. Boisligniere has seen such cases; and I recollect one case particularly which I saw. I drew some urine and examined it, and it was absolutely free from albumen. The patient was in labor at the time, and she was successfully delivered. Just as labor was completed I drew some urine and examined it, and there was albumen present, and there could not have been more than three hours difference. In both instances I drew the urine from the bladder with a catheter.

This patient had no premonitory symptoms whatever. Her pregnancy was apparently as healthful as any pregnancy we see. So we do not always have antepartum symptoms, and sometimes the patient is suddenly attacked in what seems to be a very hopeful case. Whenever we have the existence of chronic renal disease, evidenced by albumen in the urine, by casts and epithelium presenting under the microscope the characteristics of Bright's disease, the course is very much worse, and in those cases we may almost inevitably look for an explosion at the time of the puerperium. I recollect one case in which there was albumen in the urine almost constantly. The patient was kept under treatment

pretty much as Dr. Engelmann suggested, and the albumen had pretty nearly disappeared. I attended this patient in two confinements which were perfectly normal. We were expecting to have an explosion but there was none. After the confinement the albumen disappeared, and her general health was re-established. The last time I heard from her she was still living and quite healthy. I consider that the production of premature labor under these circumstances should be governed entirely by the nervous condition of the patient and not by the simple existence of nephritis or albumen in the urine, because I have seen cases pass through successful labor under constant supervision for the recognized existence of nephritis. As a rule if the nephritis is persistent and to any considerable extent, the deterioration of nutrition is so marked that the life of the child is almost always imperiled; even if the child is not dead, it is very apt to be improperly developed, and usually they don't live very long after the convulsion. I do not think that we are justified in producing premature labor simply because albumen is present in the urine, nor because of the existence of nephritis, unless there is some evidence of convulsive explosion. Under those circumstances, where convulsions threaten, I think it is well to induce premature labor; and I think the method that Dr. Boislaniere has described is the simplest. But when we recognize the renal complication we should use moderate diuretics, saline cathartics from time to time, and use iron freely. I generally use iron and acetate of potash, which seems to be more assimilable and agrees better with digestion, and acts as a diuretic as well as a tonic. I usually give it in very full doses, 20 to 30 drops three or four times a day. I am now giving a patient 20 drops every four hours, and it does not produce constipation nor any gastric disturbance whatever. A few months ago I was summoned to a patient who was pregnant, whom I had never seen until a week before her confinement.* She was pregnant with her fourth or fifth child. She had disturbed vision, slight puffiness of the face and a very scanty urinary discharge. On examining her urine I found that there was a large amount of albumen: there were also a few epithelial scales, from the pelvis of the kidneys as well as from the tubules. It was evidently a case of pyelo-nephritis, I think confined chiefly to the left side; the pyelitis was certainly there. She suffered acute pain at the time that I saw her. It was then too late to do anything but nourish her. She was put upon iron, and directed to drink freely

of the purest water she could get and I used Silurian water. Her labor came on, and she had a perfectly natural labor. She had a very free post partum hemorrhage; for a few minutes it was very excessive: the pyelitis continued, and she was ill for a month: however the child is fairly nourished. In that case it certainly would have been very unwise to have induced premature labor. I think the child's life was in danger, yet the patient went through to a perfectly normal labor. We have these ante partum convulsions produced from several different causes. We may have chronic nephritis which may produce the convulsions, but not very commonly. Now the doctor has alluded to blood-letting which was formerly the constant practice, and, as I have before said in discussions upon this subject, in the absolute presence of the convulsions, when the congested, turgid vessels of the brain, the contracted capillaries threaten mechanical injury to the vessels, I think bleeding should be adopted; but in case of edema, where there is disturbed vision I don't think blood-letting is called for. In the condition of hyperemia the blood vessels are soon filled; it is not a true condition of phlethora. The very conditions which we adopt to increase the red blood corpuscles will do away with this apparent plethora, the albumen will disappear much more satisfactorily than if we use blood letting, which I contend produces merely a temporary and mechanical effect in relieving the high arterial tension, and blood letting should only be employed to prevent too high arterial pressure and prevent rupture of the blood vessels at an important site. Otherwise the treatment that has been suggested by Dr. Boislaniere and Dr. Engelmann, I think, is the accepted treatment of the day. There is no question about the propriety of producing premature birth in cases of convulsions accompanied by the other symptoms. It is a very curious fact that we not unfrequently have these nephritic indications and presence of threatened convulsions very early in pregnancy, before it is possible that the enlargement shall be of any import so far as regards pressure upon the ureters, especially in primiparæ, and so preventing free excretion of the urine from the kidney, which has been suggested as the probable cause for this trouble. I have no doubt it occasionally may be so, but I think in many instances we must still go back to the doctrine first advanced by Marshall Hall, that many of these cases are purely neurotic, that the neurotic trouble produces the renal complications and disturbances following in this way, otherwise it is impossible to ex-

plain why the whole train of ferocious symptoms should subside simply upon the emptying of the uterus and relief of this pelvic irritation.

Dr. Boisliniere.—You would modify your treatment in case the patient showed very serious nervous disturbance, for instance, intense cephalgia, loss of sight, etc.

Dr. G. A. Moses.—I think under those circumstances the ordinary treatment will give relief.

There is one important point in the treatment that I neglected to mention; that is, the function of the skin, hot baths, hot applications, in one or two instances I used pilocarpin very advantageously for the relief of the cerebral symptoms.

Dr. Prewitt.—I only want to say that in my experience bleeding is one of the most efficient measures we have. I can not exactly understand Dr. Moses' remarks, whether he states that in the actual presence of the convulsions with cerebral congestion and tension of blood-vessels he would bleed or simply in the threatening condition. It seems to me that we must have this condition of tension of the blood-vessels and all that sort of thing when the convulsions are imminent, as well as after they have occurred.

Dr. Moses.—I would not bleed for albuminuria and disturbed vision.

Dr. Prewitt.—I should think so far as the presence of mere albumen is concerned, it would not be an indication for bleeding, but it does seem to me that when there is disturbed vision it is pretty good ground for bleeding—so also if there is intense headache. I remember a case that I was called to see some years ago. The lady was not very plethoric, she complained of intense headache. She was in the seventh month of pregnancy. I prescribed for her and told her that if she did not feel better in an hour or two to send for me. Within two hours I was sent for and found her in convulsions. I bled her and she did not have another convulsion. The child never kicked after the convulsion.

Now, I cannot say whether that child died in consequence of a condition of mal-nutrition—before the convulsion it had been quite lively,—or whether it died from the condition brought about immediately by the convulsion, or how far the nervous condition of the mother had to do with killing the child, but it died, and the mother told me she never felt the movements of the child after that convulsion. As to the value of venesection, I am thoroughly convinced

that it is an exceedingly valuable means. As to the cause of the convulsions I must confess that I do not know. I fully agree with Dr. Moses that there is a good deal about the matter that we don't know. In regard to the carbonate or ammonia causing them, I must confess that I don't see the rationale of it. We give patients carbonate of ammonia, in ten grain doses, every two hours, keeping it up for hours; the ammonia must get into the blood, that is what we give it for, and yet we never see any convulsion following it, I never have seen any convulsions following its use.

Dr. Frank Glasgow.—I have.

Dr. Prewitt.—So I say that in my opinion venesection is in many cases a most efficient agent, the most efficient that we have, and other agents, chloroform, morphine, etc., are used more advantageously after bleeding than before it.

Dr. McPheeters.—This is a subject in which I am very much interested. I have had some experience in eclampsia ante partum, post partum and puerperal. I would not bleed every patient, I would not think of bleeding an anemic patient. I would trust in such a case to the remedies which have been suggested. But if before delivery, before full term, if I had a patient with a tendency to plethora, with a persistent headache, whether there were albumen in the urine or not—and by the by, I think there are few cases that go through a case of labor without at some period having albumen in the urine, the pressure on the renal blood-vessels is such as to give rise to it. I think the existence of albumen, no matter to what extent, so far from being a contraindication to the use of the lancet is an additional indication for venesection, because you not only relieve the tension of the renal blood-vessels and in that way diminish the amount of albumen, but where there is persistent headache, accompanied with other symptoms, and the patient is in a condition to bear it, my rule is to bleed and that not sparingly, but profusely, and more than once if necessary, followed immediately by a brisk mercurial cathartic and sometimes the muriated tincture of iron. I also use digitalis. Then after the symptoms have subsided, I am in the habit of giving bromide of potash. I recollect a case which I saw not long ago. The patient was at about the eighth month, and I had not seen her until I was called and found her in convulsions; she was a stout plethoric woman, and I bled her about a quart. The blood flowed spurtingly at first, but as it continued to run it increased in volume until it came

away in a full stream, and in a very few minutes the woman became conscious. I then learned that she had awaked in the morning with a violent headache, and that she had suffered with headache for some days previous. I drew off some urine and examined it, and there was the same condition that Dr. Engelmann spoke of; upon the application of heat it became solid in the test tube. I shook it out, and it retained the cylindrical form of the tube. Under proper treatment the albumen entirely disappeared from the urine so that there was not a trace of it present. This patient passed out of my hands and was delivered at full term by another physician of a dead fetus. I suppose the fetus died at the time she had the convulsion. I believe in these cases we have very efficient remedies in venesection and in depletion from the bowels by means of drastic purgatives. I have sometimes during the convulsions given a drop of croton oil on the tongue in order to secure a rapid and profuse action from the bowels.

Now, in regard to the causation of this trouble, I believe that it is sometimes reflex no doubt. And why not, if reflex irritation from the bowels and gums will cause convulsions in a child. We all know that we may have reflex action from pressure of the womb which will produce convulsions in a woman, and it may be that a reflex or hyperemic condition of the brain and of the kidneys might cause the same trouble. Of course, there are multitudes of cases in which albumen in the urine exists during pregnancy and there is no eclampsia, but in those cases in which I find albumen in the urine during pregnancy before labor, I always keep the bowels open, secure as far as possible free action of the kidneys by use of diuretics, and have the patient drink large quantities of any of the waters, Sweet Springs water, or Bethesda water, and use digitalis, diuretic salts, iron tonics and remedies of that kind.

Now, with regard to the induction of premature labor, I agree with Dr. Moses that I would resort to medical means when eclampsia is threatened, but I would not hesitate in the seventh or eighth month, when other means of overcoming the convulsions have failed, to induce premature labor. So far as possible I would rely upon medical means for overcoming the trouble, and not resort to premature labor until there was some urgent symptom. It is true the continuance of headache, disturbance of vision, loss of vision, and all those symptoms might justify us in resorting to it, but I should be inclined to wait and not resort to the induction of pre-

mature labor until there was some threatened outburst. I have lost only one case of eclampsia out of a good many, and that was a patient who was very near to me and in that case venesection was not resorted to. I have always regretted that it was not. But I would not bleed an anemic woman. I would give her tincture of iron, digitalis, and resort to other remedies, but I would not bleed simply because she was threatened with convulsions. So that I think there is a substantial agreement between the gentlemen.

Dr. G. A. Moses.—Dr. Prewitt spoke of bleeding in a case where there was headache, amblyopia, etc. I do not think that as a rule blood-letting is called for in such cases. Partial blood-letting is perhaps advisable, such as may be done by cupping the back of the neck or scarification of the nares. Partial blood-letting has a very decided beneficial effect upon cerebral symptoms without any great loss of blood.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated meeting Dec. 13, 1887, DR. JONES in the chair.

LARVÆ IN THE NOSTRILS.

Dr. Todd said that last September one of the graduates of the Missouri Medical College brought from his home in Illinois a number of maggots, some of them in an active form, others in the transition stage, in cocoons. He removed about sixty of them from the nostrils of a woman, with a syringe, in the course of a week. The mucous membrane of the nostrils was greatly eroded, the bone being bare in places. The woman had suffered intense pain, but she was then doing better. In the course of ten weeks most of the larvæ hatched out. The larvæ look exactly like those of the common flesh fly, such as we see upon meat that is putrefying, but the fly is very different from any flesh fly we ever see. The characteristics of the fly are these; its body is shorter than that of the common flesh fly; and of a metallic blue color, and when alive the head is enormous as compared with the size of its body; the eyes are of a very rich orange color, and the space between the eyes is of a bright silver color, giving the fly a very peculiar appearance. There would be no difficulty in recognizing such a fly;

the body being short, the head very large, with the orange eyes and silver face. Dr. Todd wrote to Dr. Williston, of New Haven, an able entomologist, and described the fly, and he told him very probably the fly was what is called the screw-worm fly the technical name of which is *Lucilia macellaria*; he says: The genus *Lucilia* includes the common flesh fly. The species is rather common in the western and southern states, but he had also seen specimens collected in New England. In the southern states they are known under the name of the screw worm fly and cause some damage to cattle. He had known of perhaps a dozen cases where the larvæ have been extracted from the human nasal fossæ, and in some cases death has been known to result. They are distributed through North and South America, and through South America particularly the ravages have been not inconsiderable. This woman was troubled with catarrh and had a very offensive breath, and very likely the fly was attracted by her breath and deposited its eggs in the nasal passages.

Dr. Leete asked if Dr. Todd understood that at the time this fly was supposed to have deposited its eggs in the nostrils of the patient she was well enough to protect herself against insects.

Dr. Todd said that the woman was apparently as well as ever. She was only made aware of the presence of these creatures by the pain caused by the movements of the larvæ in the cavities of the nose.

Dr. Homan said that while he was in the City Hospital he was very much surprised at the resistance of the larvæ of the ordinary flesh fly. A patient was brought in who had sustained some injury of Flies had access to it, and the wound was filled with eggs, the first he had seen, and, of course, he thought it very desirable that they should be destroyed. He tried the ordinary solution of carbolic acid which they were using at the time, and it had no effect at all. He made some experiments, and found that they were resistant of even pure nitric acid for some minutes; carbolic acid seemed to have very little effect on them, chloroform was the only thing which seemed to have a marked effect on them.

Dr. Gregory said he had usually used turpentine very success-
fully

Dr. Grindon asked if Dr. Homan watched, after he applied the chloroform see whether they came to life again. Some years ago he made some experiments by placing an insect with a little

chloroform under a cup or glass on a piece of cotton or cloth, and noting its effect on the insect. He found that the insect would generally come to life again unless the exposure was continued a very long time.

Dr. Homan thought these larvæ were killed by the chloroform.

Dr. Leete ask if *Dr. Homan* continued his observations of these insects which had been immersed in nitric acid long enough to be certain that the acid did not kill them.

Dr. Homan said that it did kill them in time, but it took a few minutes. At first they seemed to enjoy it.

Dr. Leete said he had seen nitric acid put upon worms of a larger size and it made them very lively for a little while.

Dr. Homan thought the immersion in chloroform was immediately fatal.

Dr. Gregory remarked that in that case it would be well to allow the patients who are suffering from these insects in the nostrils to sniff a little chloroform.

COCKLE-BUR IN THE LARYNX.

Dr. W. C. Glasgow said that some days ago a negro child, about ten years of age, was brought to the Polyclinic with the statement that she had swallowed a cockle-bur. There was intense dyspnea and cough at the time, but this had gradually subsided, and when he saw her the next day, there was no dyspnea and no cough, but she was completely aphonic. The bur could be seen in the larynx, about one-half of its body being covered. A ten per cent solution of cocaine was applied, and the bur removed without difficulty through the mouth by means of laryngeal forceps. This shows to what an extent operations about the larynx have been simplified by the use of cocaine. This was the third cockle-bur that he had seen in the larynx. The first was about fifteen years ago at the Sisters' Hospital. The attempts to remove it through the mouth were unsuccessful, although the bur could be grasped. Therefore, tracheotomy was performed by *Dr. Gregory*, and it was removed by forceps. The next case was in a girl, seventeen years of age, who was brought from the country. In this case a large cockle-bur lodged in the ventricle of the larynx. Dyspnea occurred only after exercise. Going up stairs seemed to distress the patient, but ordinary walking caused no dyspnea. In this case he applied a ten per cent solution of carbolic acid, which produced anesthesia

of the larynx, and he was enabled to remove it in that way. The solution of carbolic acid acted if not quite as well as the cocaine.

Carbolic acid has one advantage over cocaine, it produces a sharp burning, lasting some 15 to 20 seconds; after this passes away it leaves the parts feeling very pleasantly. The application of strong solutions of cocaine leaves the parts rigid, and this rigidity continues for some five or ten minutes, it produces a very uncomfortable sensation. In the large majority of cases by the use of anesthetics a cockle-bur can be removed from the larynx through the mouth. He can hardly think of a case, unless it be in a very young child, or an exceedingly nervous person, where in the present stage of laryngeal surgery, the external operation would be necessary.

In answer to a question from Dr. Gregory Dr. G. said he had used bromide of potash as a local anesthetic, but found it very inefficient.

Dr. Gregory said that he recalled the case referred to by Dr. Glasgow. After the efforts at removal through the mouth had failed he had performed tracheotomy. The tube was introduced, but the bur did not appear in sight, and they waited until next morning and found the bur in the ventricle just as they left it the day before. With patient under chloroform and with a pair of forceps in his right hand he put his finger into the larynx and carried the forceps down on his finger just as we carry it into the bladder in the operation for stone, and removed the cockle-bur.

Dr. Fry had recently read somewhere of the introduction of a piece of cotton on an instrument which engaged the bur and extracted it. He asked Dr. Glasgow if there is any advantage in that method.

Dr. W. C. Glasgow thought there would be a decided disadvantage but that it would be possible to extract a bur in that way.

CASE OF PEMPHIGUS.

Dr. Hardaway reported a case which is interesting in itself and also illustrates a therapeutic fact. About a year ago a little girl, 13 years of age was admitted to the Children's Hospital. Four or five years before she had had measles, and an eruption had persisted ever since. The skin was rough, and there were shreds of epidermis not particularly pigmented. Not knowing the history

the doctor was unable to say what had been the previous difficulty. After the patient had been in the hospital two or three weeks the skin had become smooth, but there was a number of very peculiar lines on the hands, legs, sides of the neck and back. In some places they were simply erythematous spots, in others they were wavy lines, odd figures, figures of eight; most peculiar odd combinations. They were slightly elevated. After a few days vesiculation would be noticed along a line of half an inch, and then these other erythematous spots would grow larger, and on the base would arise an ordinary bulla of pemphigus, and the child within a couple of weeks from the beginning of this erythematous process, which is usually the beginning of pemphigus—usually there is an erythematous blush first—would be covered with blebs, circular blebs, blebs of all shapes and sizes, some of them being perhaps as large as a half dollar or dollar piece; blebs containing clear fluid, which speedily becomes drab and straw color, and then the skin assumes this rough flayed appearance. During one of the attacks there was also some fever; the child was rather sick, had some diarrhea and vomiting, but the mucous membranes were intact, there was no trouble with the mouth. Dr. Miller made a number of observations with him, they had photographs taken, and marked lines on the neck, to see if the spots would come out in certain places where the lines had been formerly. They found that in between four and six weeks another crop would grow, and that seemed to be the evolution of the disease. No treatment was instituted at first simply to secure opportunity to watch the case, but finally the child's suffering would be so great during the height of the outbreak, pain, tension and after the blebs had ruptured that treatment was adopted. Recognizing the case to be at least allied to pemphigus, and remembering the recommendation of Jonathan Hutchinson with regard to the use of arsenic, Dr. H. put her upon this treatment, and the result was very marked, the child improved visibly in general health and he found that practically the disease would be annihilated under the use of Fowler's solution given two or three times a day in combination with some wine of iron. Then desiring to know whether this effect was really due to the arsenic, he withdrew it, and the eruption all came back. When she was put on Fowler's solution, the eruption would be in abeyance again. This seemed to verify the statement of Hutchinson in regard to the wonderful effect of arsenic in these

eruptions both pemphigoid and in pemphigus exfoliativus, of which Dr. Hardaway said he had had one case. There are not more than three or four cases recorded in this country.

ANTIPYRIN.

Dr. Fry said he had a patient with a subacute form of rheumatism which began in the muscles and afterwards affected the joints very seriously, and for which he gave him salicylate of soda, and after the first day or two he broke out with an urticaria, large welts all over the body, and as the use of this drug continued it became more aggravated, flushes of it coming on every two hours. Then the drug was stopped for a while, but there was an exacerbation of the rheumatism, attacking fresh joints, and he again used the drug with a repetition of the troublesome eruption. The itching was so intense that the man was almost crazy; the medicine was again stopped, and again there was a new development of the rheumatism. He then gave antipyrin, and after the first day or two he was relieved. Meanwhile the rheumatism persisted, and he gave a dose or two of salicylate of soda, and the eruption broke out to be again arrested by giving antipyrin. He is now getting better.

QUININE IDIOSYNCRASY.

Dr. W. C. Glasgow said that a few weeks ago a lady consulted him for a difficulty of speech and swallowing. The appearance and the history of the case indicated that it was a case of diphtheritic paralysis. In the morning he ordered Wyeth's elixir of iron, quinine and strychnia. At about two o'clock he was sent for, and as he did not get the message until half past three, another physician was called in. He reached her at about four o'clock, and on examining her throat found the pillars of the palate were in a state of great edema; there was also great swelling of the posterior surface of the larynx and the aryteno-epiglottic folds. She was then breathing easily, but she stated that soon after she had taken the medicine she had experienced a great difficulty of breathing with a stridor similar to that seen in a case of false croup, the physician who attended her said that he had found her in that condition. She stated that some months before she had a fever, and the doctor gave her a powder that produced exactly the same symptoms, and she thought that she was going to choke. These

symptoms were doubtless caused by the quinine, because she had a similar attack from the use of a powder which had been given for malarial fever, which probably was quinine, although she did not know positively. The edema disappeared rapidly under simple anodyne inhalations, and on the following day the larynx and pharynx were perfectly normal.

MUSCULAR RHEUMATISM.

Dr. Homan said that within a month he had seen a case which appeared to be muscular rheumatism, in a young man about 17 or 18. There was considerable fever and pain, particularly of the muscles of the left leg from the hip down. For several weeks fever recurred with irregular intervals, and quinine did not at first seem to have much effect, but later was controlled by taking 16 grains in two doses. In the latter part of his illness the calf of the left leg was so tender to the touch that he could hardly bear to have it touched. During the latter week or so he improved decidedly, and was free from fever, but on comparing the left leg with the right there was considerable difference, the left being much smaller, and there was a decided lump in the substance of the calf. The left leg is more flat, as if the muscular substance, the fibre, had been absorbed, and there was only the sheath remaining. He was unable at first to flex the leg to any extent. Now he is recovering some use of it and the lump is slowly disappearing.

DIPHTHERIA.

Dr. Dixon said that about two and a half months ago he was called to see a little child five years of age with a mottled eruption of the thigh and also some trouble of the throat. The throat glands were swollen, dark, angry looking, but there was no sign of any membrane forming. Some six hours afterwards the velum, fauces and part of the pharynx were covered with membranes; in twelve hours after that the whole of the pharynx, even the inside of the cheeks and extending out to the lips, were covered, and there was some of the membrane on the tongue; there was also a membrane extending down toward the anterior nares. The membrane began to disappear in about ten days or two weeks, but just as the membranes were disappearing the child was first taken with internal strabismus, very marked; afterwards there was paralysis of the

muscles of deglutition. A few days after there was complete aphonia; not long after that there was paralysis of the extensor muscles of the forearm; there was complete paraplegia, and finally paralysis of the muscles of the neck. The heart's action was normal, there seemed to be no disturbance whatever in it. There is another peculiar point about this paralysis, it commenced before the membranes had entirely disappeared, which is not given as the rule; it generally starts in about two weeks afterwards.

The paralysis had now all disappeared except in the muscles of the neck, the child can hardly hold its head up yet.

Dr. Todd said he had seen the statement that diphtheria has been particularly prevalent in the neighborhood of stables and he would like to know what had been the experience of the gentlemen in this regard.

Dr. Gregory asked if there were not a great many cases of sore throat that were not diphtheria?

Dr. Ravold said he had seen a great many cases of sore throat but only a fair sprinkling of diphtheria.

Dr. Glasgow said that this fall and winter he had seen several unusual varieties of sore throat, which seemed to be in a measure epidemic, one is acute follicular disease of the tonsils, another is what he considers a rheumatic sore throat, and still another, is an acute inflammatory condition of the fauces with great pain, differing in many respects from ordinary catarrhal inflammation: the last form he was inclined to consider as identical with the acute follicular disease of the throat, although in many cases there is no exudation on the tonsils.

Dr. Gregory asked whether *Dr. Glasgow* regards these cases of relatively simple sore throat as contagious.

Dr. Glasgow said he had seen acute follicular disease of the throat run through a family in such a way as to make him really believe it is contagious. Yet he would not be willing to regard it as a mild form of diphtheria, because the symptoms assume an entirely different type, and run a peculiar and typical course. The follicular disease generally commences with a marked chill, followed by fever, the fever is sometimes present before any eruption is visible in the throat or before they have complained of any soreness of the throat; often the fever is quite high, as much as 103°: under proper treatment it rarely lasts over twenty-four hours: without treatment it may last three or four days. Headache, an intense

pain in the back and aching of the limbs are usually present with the fever, but in some cases, some of these symptoms are wanting, in some cases patients complain of feeling tired, there is generally an extraordinary amount of prostration, considering the short duration of the attack. To the eye the mucous membrane of the fauces appears swollen and edematous. If the tonsils are involved, they are swollen and edematous, exudation matter may sometimes appear in spots, or they may be entirely covered, but follicular disease may be present without any appearance of exudation on the tonsil. Minute yellow points may be visible in the pharynx, or the edematous membrane may present a peculiar mottled appearance which is highly characteristic of the disease when the peculiar exudation is absent. It is difficult to distinguish the latter condition from the rheumatic sore throat: the symptoms and the specific action of benzoate of soda affirm the diagnosis. Persons with follicular disease of the throat say that the pain in the throat is entirely different from that of an ordinary sore throat, it is rather an intense aching than an acute pain.

Dr. Fry asked why *Dr. Glasgow* calls one class of cases rheumatic sore throat.

Dr. Glasgow said it was a name given and received by laryngologists for an inflammatory disease of the throat characterized by swelling and pain, both of which are essentially different from that seen in catarrhal inflammations, it is an analogous condition to that seen in rheumatic affections of the muscles, the so-called rheumatic lumbago etc. The muscles or at least the sheaths of the muscles are involved, and the mucous membrane is rather edematous than inflamed: there is no necessary connection with rheumatism as a constitutional disease. The attack comes on suddenly, usually in the afternoon: there is great pain in the throat or rather an aching; this increases towards and during the night, and is relieved partially, or entirely disappears in the morning: towards evening it is again experienced. There is little or no fever, and the attack promptly disappears under a few doses of salicylate of soda. Quinine does not relieve it: without treatment it may remain for a week or more. To the eye there may be little change: the fauces, the mucous membrane especially about the palate may appear swollen, there is at times a thickening of speech which is evidently due to a paresis of the palate.

Dr. Todd said that *Mackenzie* in his work says he does not be-

lieve in any such thing as this rheumatic sore throat. A number of years ago he himself had an attack of rheumatism which affected every joint in his body, so that he could only move his head. It began like an ordinary sore throat with pain and difficulty in swallowing. In two or three days he had pain in the ankles, and it very quickly affected all the joints. So there is no question in his mind that there is such a thing as rheumatic sore throat.

Dr. Gregory suggested that rheumatism like syphilis will modify any disease with which it is associated.

Dr. Leete remembered *Dr. Todd's* case very distinctly, but it was not his notion at the time, nor now, that the throat trouble ought to be classed as rheumatic. He could not believe that there is such a thing as rheumatic sore throat. Ordinary simple sore throat of varying degrees of severity may occur in persons of all ages. One may have a sore throat without any appearance of follicular trouble, much more without any appearance of diphtheritic exudation from the same exposure to vicissitude that subsequently seems to develop what we are pleased to call rheumatism, which is attributed to faulty assimilation and is most commonly found in people who do not clothe themselves with care, who do not keep their skin in good condition, and who are very fond of meat and other articles of food and drink which overload the system.

Dr. Lemen said that the number of cases of diphtheria reported in the southern part of the city is almost half the number reported all over town, and although not able to say that they are in the families of the dairymen particularly, they are found in that section where they use town dairy milk, or milk from the swill fed cows. There are over 200 dairies in the southern part of the city.

In regard to rheumatic sore throat, he had several patients who had had a number of attacks of rheumatic trouble of the joints and after getting well over the joint trouble had an attack of what he called rheumatic sore throat. He gave them salicylate of soda and they recovered from the sore throat.

Dr. Gregory said that where he sees sore throats like those described by *Dr. Glasgow*, he insists upon isolation, lest there may be some infection about it, and again lest there may be some peculiarly susceptible person exposed to it. He believes that in all these cases there are two factors, the agency that directly produces the effect and a peculiar susceptibility to the disorder. And this susceptibility is sometimes distinctly marked in a whole family.

Then too Dr. Glasgow called this sore throat a rheumatic sore throat because there was a paresis of the palate, a symptom which is so characteristic of diphtheritic sore throat, so that if he should see a case of this sort he would be just as much afraid of its being communicated as in case of the most malignant form of disease. The infection must be the same in mild as in grave cases. The degree of resistance determines the degree of intensity or mildness of the disorder, one person being peculiarly weak and susceptible will have a malignant form of diphtheria, whilst one whose resistance reaches up towards the maximum or standard of resistance will scarcely receive or lodge the infection at all. In 1849 and in 1866, for every person who had cholera there were forty or fifty or more who did not have it, who were certainly exposed to the same danger precisely. He is satisfied that it was because the degree of resistance which they possessed reached farther towards the maximum standard. So it is with diphtheria, and for this reason whenever he comes across a suspicious case of sore throat, he feels like isolating it. He believes in keeping the patient away from other children.

Dr. Tuholske agreed with Dr. Gregory on the subject of contagion in these different varieties of sore throat. He is satisfied that many cases that afterwards develop into unmistakable diphtheria, begin as follicular sore throat, just as abscess back of the tonsil will develop following upon the heels of follicular tonsillitis. The rheumatic sore throat he would not lay great stress upon, because any interference with the muscles of the throat, any decided inflammation of the glands of the throat has a tendency to produce this condition, when there is inflammatory trouble, there is often enough edema about the inflamed fossa to interfere with ready muscular action, producing painful deglutition, putting the palate at a great disadvantage. We can explain the muscular symptoms upon ordinary and reasonable grounds.

He thinks it is a mistake to say that follicular tonsillitis never produces abscess. There is no reason in the world why a cyst of the follicle should not develop into an abscess. Sometime ago a doctor of some celebrity came to the conclusion that those patients who have a general susceptibility to sore throat have as a rule in addition, a local susceptibility, and that as the local susceptibility increases; they have an attack, the glands get larger, deeper, wider, they are open and are good catch places for decomposing fluids or

poisonous material that may happen to pass. He recommended to treat such cases by tearing open such deep follicles, making them gutters, open sores instead of baskets, introducing into the follicle a blunt hook and pulling it open and thoroughly disinfecting it and allowing it to cicatrize, so that the tonsil which is now honey-combed, full of little pockets, after a while becomes nearly smooth. He claims that in a good many cases he has stopped the local susceptibility. Dr. Tuholske regards this method of treating these tonsils full of pockets, as a very rational one, although it has not become popular simply because it has not become known. There is a good deal of sense in that treatment.

Dr. Funkhouser had seen cases of so-called rheumatic sore-throat in which he had been unable to discover any rheumatic taint and think very often these cases are due to biliousness or malaria or both. He thinks it possible that there are cases of the same variety and same character occurring from different causes besides rheumatism.

Dr. Grindon does not see why there is any objection to the use of the term rheumatic in connection with this affection of the throat. Rheumatism is the result of faulty assimilation, digestion, nutrition; matters have been taken into the blood and not properly removed, uric acid is in excess in the blood, the urine is changed in character, the patient is ready to take cold. Now such a person takes cold, and we have a catarrhal condition of the mucous membrane, or there is an inflammation somewhere in the muscular or fibrous tissue, and we have acute articular rheumatism. The term is also extended to inflammations of the muscular tissue, probably because we have no better name, and he cannot see why we may not call rheumatism an inflammation of the muscles of the palate and neck, with edema.

He also called attention to the use of ichthyol as an external application in cases of rheumatism. The first case on which he tried it was that of a lady who during four or five years had suffered several attacks of acute articular rheumatism. When he treated her with the salicylate of soda she did not experience very much benefit, she was generally sick about four or five weeks, and the last time she had treated herself with poultices, etc. In another attack the right knee was the only joint affected. Dr. Grindon applied a lotion containing a dram of the sulpho-ichthyolate of sodium a dram to the ounce of water, and gave salicylate of soda internally.

When he returned the patient said she felt quite well, and on the third day she came down to the door to let him in. The second case was that of a gentlemen from New York, who was subject to frequent attacks of acute articular rheumatism. The left elbow was very much inflamed, very tender and he had some fever. Dr. G. gave the same treatment, and did not see him again for a month, and did not know what had become of him, but about a month later he called him in again with a return of the same trouble. He then told him that the remedy had acted like a charm on the former occasion. This time his condition was much worse, there were more joints affected. He gave him the same treatment. The landlady objected to the odor of the ichthyol and soiling of the sheets, and after the second day the ichthyol was discontinued. He improved rapidly up to that time; and afterwards continued to improve slowly. The third case was that of a gentleman about 35 years of age, who uses alcoholic drinks freely although not to intoxication; and he had one of those typical cases of rheumatism, which Dr. Fuller has so well described, in which the indications seem to be for alkaline treatment and depletion. Dr. G. gave salicylate of soda and used ichthyol, and he improved immediately. When he first saw him he was lying in bed almost unable to move, and on the third day he went down to attend to business. He was not well but he was very much better. Since then, as he refused to take any more medicine he has had a return of the trouble. Dr. G. don't think ichthyol alone will cure acute articular rheumatism, but thinks it is valuable as an aid.

Annual Meeting, January 10, 1888, DR. FRY in the Chair.

Dr. Boisliniere read a paper (Vide p. 195) on

A POINT IN OBSTETRICS.

Dr. Nelson said he had made one observation which does not altogether support the statement of Dr. Boisliniere, that quinine administered to the mother will control intermittent fever in the child. His youngest child was born July 5, and the mother on the eighth day after the child was born had a severe malarial chill with high fever which was controlled on the second day by quinine. This drug was continued for several days after so that the mother was kept under the influence of the quinine for several days. The

child's urine was colored red, so that there was a decided stain from the urine upon the diapers, and it continued in that condition for several days. The child had a slight spasm and evidently had some fever: the day following that there was some slight twitching, evidently threatening of severe spasmodic action. The temperature was 103° , and he resorted to the use of a cooling bath at once which reduced the temperature and allayed the nervousness. The following day the mother being under the influence of quinine, there was a return of the fever and for three successive days. The child was evidently not affected in any degree by the quinine which the mother had taken. He attempted to give it by inunction, which he has often found to act very satisfactorily in a good many cases in children under a year old. In this case it had no effect whatever, and he finally resorted to the internal use of quinine in the good old fashioned way, and three doses of one grain each broke up the chills entirely, cleared the urine and there was no return of the fever at all.

Dr. Boisliniere remarked that he had said in his paper that neither quinine nor opium are transmissible through the mother's milk.

Dr. Frank Glasgow had a case of syphilis in a child in which the nose was being eaten away very rapidly: there was an ulceration on both cheeks and one on the forehead. The mother did not have a trace of syphilis but a cicatrix on the lip with a history of an ulcer appearing within a month after marriage and lasting for four months: she had never had any ulcerative eruption of any kind. The child was as distinctly syphilitic as any he had ever seen. He stopped the ulceration by the use of blue ointment and opium, the bones came out afterwards. After the ulceration ceased he gave the child medication entirely through the mother's milk, bichloride of mercury and iodide of potassium. The father had a soft chancre(?) years before, and he had an idea that he gave it to the mother.

Dr. Dean said that innumerable cases are on record showing that a mother may give birth to a syphilitic child and not have syphilis herself. The law established by these cases is a very simple one. Every cell of a syphilitic mother is syphilitic, every cell of a syphilitic father is syphilitic. If the mother have syphilis herself when she conceives, of course the ovum being syphilitic, the child will be syphilitic. If the mother acquire syphilis while she is pregnant, the fact that the blood of the fetus only passes to the

fetal side of the placenta and the blood of the mother to the maternal side, prevents the poison passing from the mother to the child, the microbes or poison being too coarse to pass through the septum, and, therefore, she may acquire syphilis while she is pregnant and the child not have syphilis, unless it acquire it in its passage to the outer world. On the other hand if the father have syphilis and the mother not, his spermatozooids being syphilitic pass to the ovum, and the child is syphilitic when it is born; the syphilis not passing through the septum between the fetal and maternal side of the placenta, the mother does not acquire syphilis from the fetus. She may acquire syphilis during the expulsion of the child.

Dr. Briggs presented patients and read a paper (Vide p. 198) on

PRIMARY RACHITIS.

Dr. Alleyne said it is not true, as is generally understood, that rachitis is generally accompanied by deformity of the bones; these deformities may appear some time after the disease has begun. A great many of these difficulties in infants are treated as biliousness, malarial fever or some such trouble, and if we examine closely we will find that the true cause of the symptoms, such as fretfulness, of the child, inability to sleep, possibly poor appetite, are due to rachitis. The disease is much more prevalent than is generally supposed, not only among the poor classes, but among the richer class also: they are by no means exempt. Of course deformities of the bone occur after the disease has progressed sufficiently, and unfortunately we often do not recognize the disease early enough to prevent deformity. He asked if *Dr. Briggs* treated these cases with cod-liver oil and improved hygienic surroundings.

Dr. Briggs said he had depended on improving the hygienic surroundings. He is inclined to agree with those gentlemen who think there is generally sufficient lime in the food, and cod-liver oil he gave on general principles. He had found in several instances that lime did not produce the satisfactory results which might be expected considering the peculiarity of the morbid anatomy of the cases. Too often when lime is administered, it is not absorbed by the system, and tends to cause dyspepsia, and to disorder the digestive organs, and thus do harm to the child.

Dr. Steele was especially interested in the secondary results of rachitis. It is a curious fact that these cases in the great ma-

jority of instances, in this country at least, are found in the colored race, and especially among mulattos who are more subject to tuberculosis also than either blacks or whites. It is interesting to note that this class of people is more subject to both rachitis and tuberculosis. In time we shall probably have rachitis developed in all the large cities, brought about by improper hygienic surroundings. In London and most of the other large cities of Europe, the disease is very prevalent. As has been stated, deformities do not appear at first, and this occasions the difficulty in making a diagnosis early in the disease. If the trouble is recognized early enough, the deformities can be prevented.

CIRCLE OF WILLIS.

Dr. Todd exhibited specimens of the circle of Willis, showing abnormal arrangement of the vessels. In one the right internal carotid formed the middle cerebral artery and that only, the right anterior cerebral being a branch of the carotid and connected with the right carotid by an arteriole of minute size. Both posterior communicating arteries were very small. Two specimens showed the posterior cerebral given off by the carotid of its side, the right in both cases. In these also the posterior communicating arteries were replaced by plexuses of capillaries. In one there was a third anterior cerebral artery springing from the anterior communicating. Other specimens displayed less pronounced peculiarities.

Such varieties in the distribution of the carotids in view of the small connection of the vascular areas in the pia with one another and the total isolation of the cerebral areas, suggest the dangers that may attend ligation of the common carotid. Compression of the vessel before operating, to note the effect of sudden stoppage of the blood supply, is an obvious precaution. In the *COURIER* a case has been reported from the German, in which one common carotid having been ligated for aneurism, and aneurism occurring in the other also, it was found necessary to have recourse to gradual compression before ligating to allow the collateral circulation to be established.

Dr. Dean said that about two years ago he ligated the right common carotid, in a case of aneurism affecting both the internal and external carotid, and after some little time the man was troubled again, and an aneurism began to appear, and before ligating the

artery he tried compression on the other side and found that quite complete compression could be made and still not affect the man injuriously. It was one of those cases in which the collateral circulation increased and was well established.

Dr. Fry said that in his experience there is a good deal of irregularity in the portion of the circle of Willis in the region of the posterior communicating arteries. There is often an asymmetry of the two vessels, and often a number of small vessels instead of a single posterior communicating artery. Within a week he had seen a case in which there were a number of branches running back from the middle cerebrals to the posterior cerebrals. On each side there were a number of these vessels, some of them not striking the posterior cerebral until it had gone some distance in its course. In regard to the collateral circulation in these instances we all know how rapidly an artery will increase in size for the purpose of enabling the circulation to go on after arteries have been destroyed, and in a case such as that just cited, where there is a number of arteries branching off, they would in a short time allow the usual amount of blood to circulate through them. However, if both vertebral arteries were ligated, as has become a tolerably frequent procedure of late years for the cure of epilepsy, if there was any deficiency in the posterior communicating arteries, there would be a good deal of trouble on account of such ligation.

Dr. Grindon said that in a recent number of the *Medical Review* he had seen a statement that a gentleman found abnormalities in 81 out of 200 circles of Willis examined.

Dr. Nelson read a paper (Vid. p. 203) on a case of

INFLAMMATION OF THE VERMIFORM APPENDIX.

Dr. Dean said he was called on Thursday evening by telephone to go out and visit the daughter of a gentleman who said he was afraid she was going to die. On arriving there he learned that Dr. Nelson had attended her up to the date specified and that at that time there was no stercoraceous vomiting, enemata had acted pleasantly, but the family physician was called in at her request. When Dr. Dean saw the case, vomiting had ceased, evidently the girl was going to die, she was only partly conscious. The abdomen was quite tympanitic and her thirst had been exceedingly great. The tympanitic resonance was higher than normal on the left side, but there was no gurgling of fluid, indicating diaphragmatic hernia. There was tenderness in the right ileo-cecal region, that is, the girl

would wince and move and groan on pressure over that region; she lay upon her right side, the right knee drawn up, and if moved over toward the back would soon return, somewhat mechanically, again to the same position. The temperature could not be taken in the mouth: in the axilla it was 34.5° , (94° F.) in the rectum it was 35° C. (95° F.) Bimanual examination showed that there was no trouble with the uterus, or perimetritic trouble. He told the parents that the girl would probably die from peritonitis and that there was an obstruction in the ileo-cecal region, and nothing could be done then: it was too late for an operation even if one could have been performed at any time. She was in a state of collapse, and he suggested giving morphine hypodermatically, and gave her the injection. The patient died at 3.30 the next morning. Dr. Nelson and he made the post-mortem. Upon opening the abdomen they went to the ilio-cecal region at once. The vermiform appendix was in sight about an inch, quite blue and thick, and at least two seeds could be felt in it, apparently grape seeds. The cecum was somewhat in the shape of a rosette with the vermiform appendix invaginated into it up opposite the ileo-cecal valve, and agglutinated so that it was impossible to manipulate so as to bring the gut away without separating this agglutination to a considerable extent; and on pulling down the vermiform appendix it gave way very easily. There was almost although probably not quite a perforation, and a grape-seed was felt outside which had passed through this soft tissue and some smaller seeds which were apparently raspberry-seeds. The colon near the cecum was very intensely congested, the vessels were large, on the anterior side especially.

There was a general peritonitis and the entire bowel was empty. Death was caused by peritonitis.

Dr. Homan read a paper.—Vid. p. 193. on

IMPORT OF ENLARGED VENOUS RADICLES UPON THE ABDOMEN.

Dr. Dean presented some excellent photographs which he had had taken for the purpose of preparing a paper on this same subject a few years ago.

THE OHIO STATE SANITARY ASSOCIATION held its fifth annual meeting in Toledo, O., Feb. 9 and 10, 1888. This is one of the most prosperous and valuable associations for sanitary work that we know anything of. Every one interested in the public health is invited to attend these meetings.

SELECTIONS.

AN ADDRESS FROM A SPECIAL COMMITTEE OF THE COLLEGE OF PHYSICIANS OF PHILADEL- PHIA, TO THE MEDICAL SOCIETIES OF THE UNITED STATES:

CONCERNING THE DANGERS TO WHICH THE COUNTRY IS EXPOSED
BY THE INEFFECTUAL METHODS OF QUARANTINE AT ITS PORTS,
AND IN REGARD TO THE NECESSITY OF NATIONAL CONTROL
OF MARITIME QUARANTINE.

The undersigned, a Committee appointed at the meeting of the College of Physicians, held October 5, 1887, "to consider the present danger of the importation of cholera into this country, and to secure concerted action among the medical societies of the United States in urging upon the State and National authorities the adoption of a uniform and efficient system of quarantine for all exposed ports," has the honor of submitting herewith to your Society its report of October 28, 1887, in regard to the quarantine arrangements at the ports of New York, Philadelphia, and Baltimore.

The Committee points to the condition of affairs therein described as the outcome of the system of independent municipal and state quarantine which prevails at the ports of the United States, and asks your consideration of a brief criticism of the system, and your aid in an organized effort to establish a more satisfactory order of things by placing the management of maritime quarantine in the hands of the General Government.

In this country active consideration by legislators of the dangers which threaten the general welfare by the invasion of epidemic diseases through our foreign communications has in the past been fitful in the extreme. From 1698 down to the present moment, it has been only when, goaded by the spur of imminent danger or lashed into activity by the fresh memories of disastrous visitations,

the people have with a great unanimity urgently and loudly demanded it, that spasmodic efforts to protect the general health have found a reflex in the statute laws. Whilst our statesmen and law-makers have with more or less wisdom and constancy, by the enactment of national and local laws, guarded the personal liberties and material interests of the citizen, have established more or less adequate regulations for internal trade and foreign commerce, and have performed the public duty of providing a defence against a common enemy, yet thus far they have, with singular neglect, of their own motion failed to make any attempt to provide against the ever-present danger to the general welfare from the ravages of those epidemic diseases which are brought to our shores. It is, however, true that the government has in recent years attempted to prevent the importation of diseases to which cattle are subject, by the appointment of inspectors to act in harmony with the officials of such states as have established a quarantine against diseased animals. The health laws under which we at present live are, as a rule, such only as emergencies have called into existence. Though many of their provisions may have endured beyond the danger which immediately threatened, they have been framed with an eye single to the present need, and with the expectation that an alarmed public sentiment in the threatened locality would materially supplement their incompleteness. They have seldom or never been drafted with a full recognition of the need of adequate and constant protection of the health of the general public. Imperfect and temporizing as the local health laws have been, and still are, the spirit which has inspired them has naturally felt the promptings of local interests only, and their inefficient provisions, as a matter of course, have limited their need of protection to the local interests involved. Moreover, the commercial interests of rival ports, the partisan struggles of opposing political factions, and the heedless parsimony with which money has been doled out for the execution of such health laws as exist, have rendered their vigorous and fearless administration well nigh impossible.

We are aware that there are among distinguished sanitarians, even in this country, those who more than question the power of any quarantine regulations which could be devised, however intelligently and thoroughly enforced, to protect efficiently the general public against invasions of contagious and infectious diseases, and who are inclined to advocate the policy that the State should rather

expend her energies and money in removing local conditions which favor the development of epidemics and make their spread possible. But the only country where such a policy has been pursued with some measure of success is England, after a decade of expenditure of thirty millions of dollars per annum within her compact, small territory, located as it is out of the line of movement of the hordes of infecting emigrants constantly leaving all ports of Europe, and outside of the latitudes which favor the existence of yellow fever. After the United States of America shall have intelligently spent at least an equal sum, namely, three hundred millions of dollars, in the earnest and persistent effort to improve the hygienic surroundings of the homes of a population already nearly twice as great as that of England, and scattered over a territory thirty-four times as extensive, we may then have reached a condition with regard to public health, in which it may possibly be wise to abandon maritime quarantine and to rely mainly upon the protection secured by a perfected local hygiene alone. Meanwhile, under present circumstances, recognizing the enormous cost of radically destroying the conditions which foster the development and prevalence of epidemics by thoroughly removing the filth among which they thrive, and fully appreciating the incalculable benefit which would certainly follow such a wise expenditure of hundreds of millions of the public money, we feel convinced that, with respect to the danger which constantly threatens the public health from abroad, there are at this time only two courses between which to choose, namely, a practical abandonment of the general public to a more or less individual and fruitless struggle with the agents of contagion and infection, in whatever localities the movements of immigrants may chance to convey them; or an intelligent, constant, earnest, and vigorous effort to stop and destroy them at the ports of entry. Whilst it is true that to remove the local conditions which favor the development and spread of contagious and infectious diseases is to lessen greatly their harmfulness, it is none the less undeniable that to destroy the infecting agent or contagium, or to prevent its entrance into the country, is by a single act, to prevent the implantation of the seed and to render the harvest impossible, let the soil be never so fertile. Furthermore, the cost of preparing to wage a successful combat against the entrance and spread of disease among hundreds of scattered villages, towns, and cities is infinitely more than that which would

be required to place our ports in a nearly perfect state of defence against those diseases which are now subjected to quarantine; and the loss to the public occasioned by a single widespread epidemic of cholera, yellow fever, or smallpox is far greater than would be the cost of the proper maintenance for many years of a perfect quarantine establishment at all of our ports.

The hundreds of thousands of European immigrants who annually reach our country, after starting from, or passing through localities which are infected with contagious disease, frequently in their persons, or in their pestiferous clothing and effects, carry with them, often as far as their ultimate destination, the active germs of these diseases; and the herding of these immigrants into the miserably ventilated and frightfully unsanitary quarters usually provided for the steerage passengers on steamships, the modern rapidity of ocean travel, and the great facility with which these swarms of people are soon distributed all over our country, combine to multiply the danger to the public health with which, under the laxity of our laws and the unsatisfactory administration of them, this incessant influx constantly menaces the country.

In their enormous numbers, their poverty, and their squalor, and in their frequent transportation of all sorts of infections and contagions, these immigrants can be likened only to the oriental pilgrims, in whose track pestilence has so frequently followed. It is, indeed, with the extremest rarity that small-pox or cholera has in modern times been introduced into North America by any travelers other than the immigrant class. To take the proper means to guard the ports of entry against the infected persons and baggage of cholera immigrants would probably keep cholera from our midst; to do the same with smallpox immigrants, with the addition of compulsory vaccination and disinfection of personal effects, as an invariable condition precedent to the privilege of landing, would go far toward banishing that scourge from the land; and the importation of scarlet fever, diphtheria, and like diseases might be prevented by similar measures.

The weighty objections urged against maritime quarantine as a means of protecting the public health from the assaults of preventible diseases imported by sea, are only two: First, the alleged failure to keep out these diseases by this means; second the alleged injury to maritime trade.

In our opinion the first objection finds a complete answer and ex

planation in the grossly imperfect state and mal-administration of the quarantine defences, as shown in the accompanying report; yet it may be truthfully affirmed that the quarantine at the port of New York, in its establishment and administration, is one of the best, in many respects, that will at present be found anywhere in the world. It seems to us, therefore, absurd to argue against the capabilities of a thoroughly equipped maritime quarantine, strictly administered, from the historical failures of those establishments which, with respect to plant, equipment, and direction, have been obviously deficient in the essential requirements of a modern quarantine.

The second objection is always a serious one for a people extensively engaged in maritime trade. But it is met, we think, by a due consideration, in the light of modern knowledge, of the wide and essential difference between the requirements for the proper treatment, respectively, of the ship's cargo, and of the ship's inhabitants. It is the ship's inhabitants, with their personal effects, who almost invariably introduce the infectious germs into the country; the merchandise rarely, or never conveys the contagion. Indeed, as far as cholera, smallpox, and scarlet fever are concerned it is only cargoes of rags that may be looked upon with suspicion as possibly capable of transporting the germs of disease from Europe to America. With this possible exception it is not only unnecessary, but there is absolutely no excuse in the treatment of ships with these diseases aboard to detain the cargoes in quarantine for a prolonged period. With adequate facilities at hand, the proper disinfection of a ship need not require her detention or that of the cargo longer than twenty-four hours, an impediment to trade too insignificant to be taken into account when the paramount interests of the public health are considered.

With reference to the detention at quarantine of those of the ship's inhabitants who are well, it need not be prolonged but little beyond the period of incubation of the particular disease against which the quarantine is directed. This detention the traveling and immigrant classes alone suffer, the commercial interests of the general public being undisturbed thereby. In the great majority of instances, it is among the immigrants only that actual cases of disease exist; and when we consider the advantages which the immigrant is about to receive, the necessary detention is but a small sacrifice for him to make for the benefit of the people among whom he seeks a home.

In view of the foregoing considerations, the committee would bespeak your earnest attention to the following propositions,

A. The present methods of independent quarantine provided and regulated by seaboard states or cities, are essentially defective and insufficient for the exclusion from the United States of the diseases against which quarantine is directed:

The truth embodied in this statement is abundantly established by the report of the committee in regard to the three ports it inspected. It is fully borne out in regard to the other quarantine stations between the St. Lawrence River and the Rio Grande, by this elaborate official report of Dr. John H. Rauch, Secretary of the Illinois State Board of Health, to that body in 1886.

The defects of local quarantine stations arrange themselves in two principal groups: 1. Inadequacy of establishment. 2. Faults of administration.

1. With regard to the establishment—which term is here used to include the accommodations for the temporary housing and care of immigrants and travellers not sick, adequate hospital accommodations for the sick, appliances for disinfection, and the necessary medical, nurse, police, and other attendants for the care of both of these groups of individuals—only four of the many stations upon the Atlantic and Gulf coast may lay claim to anything like adequate provision. These are Grosse Isle quarantine station on the St. Lawrence River below Quebec, the Boston quarantine station on Galop's Island, that in the New York Harbor, and those in the Mississippi River below New Orleans.

Of these four, it may be said, first, that the very excellent establishment at Grosse Isle is practically useless as a safeguard against the importation of disease, in view of the fact stated in the report of Dr. Rauch, that during the quarantine season up to October 9, 1885, only thirty-two vessels out of a total of four hundred and twenty arrivals, had stopped at this station for examination; second, that no mention is made in Dr. Rauch's description of the quarantine station at Boston of any provision for the housing and care of travellers and immigrants not sick; third, that in the last named particular, as well as in several other respects, the quarantine station at New York, hitherto regarded as fully adequate to the requirements of that great port of entry, shows serious defects. According to the official description by Dr. Joseph Holt, President of the State Board of Health of Louisiana, it would appear that

the quarantine station at the mouth of the Mississippi is, in respect of establishment, fully up to the requirements of modern science. Of the intervening stations it is scarcely necessary to speak. Certainly, as regards the prevention of cholera, and to a less extent also, of yellow fever, the greater number of them constitute quarantine stations simply in name.

2. When we come to consider faults of administration, it is obvious that it is impossible to discover their nature or extent during times of quarantine inactivity—that is to say, during those fortunately more or less prolonged periods in which the absence of disease upon incoming ships narrows the duties of the quarantine officials down to the simple inspection necessary to establish that fact.

We have, therefore, at present no criterion by which to judge of the efficiency of the quarantine administration at the greater number of the stations. The fact already mentioned with reference to the quarantine station at Grosse Isle, that during the quarantine season of 1885, up to October 9, only thirty-two vessels out of the total four hundred and twenty were examined, indicates defects in administration at the station so glaring as to require no further comment.

Faults of administration, equally serious although of a different kind, are shown by the accompanying report of the committee to have recently existed at the quarantine station at the lower bay of New York Harbor, at a time when cholera actually existed in the hospital and was from day to day finding new victims among more than five hundred Italian immigrants detained at the quarantine of observation on Hoffman Island. It is only necessary to emphasize this statement by calling attention to the following facts brought to light by the investigations of the Committee: first, the absence of the resident medical officers, both at the hospital on Swinburne Island and at the quarantine of detention on Hoffman Island; second, the absence of anything like an adequate sanitary police force on the latter island; third, the absence of any effort to separate the well, detained on Hoffman Island, into small groups, and of any proper daily systematic inspection, such as would enable the authorities promptly to discover and isolate new cases of cholera; fourth, the unreasonable detention for a period of nearly two months of more than five hundred immigrants not sick, under circumstances of great hardship, exposure, and deprivation—a fact which, in view of the present state of knowledge in regard to the

nature and mode of transmission of the infecting principle of cholera, in itself bears overwhelming testimony to culpable maladministration. And this was the situation after cholera had continued to prevail in countries, the ports of which were in constant, direct communication with New York, for a period of four years, and after the entire public press of the United States had persistently called attention to the ever-present danger of its reaching our shores. When the state of affairs actually existing at the New York quarantine during the presence of cholera there in the autumn of 1887 is compared with the impressions of Dr. John H. Rauch concerning the completeness of the quarantine at that port in 1885, as expressed in his own words, the difficulty of justly estimating the efficiency of any statement by inspections made during seasons of comparative quarantine inactivity becomes apparent. Dr. Rauch thus sums up: "With reference to the exclusion of cholera and smallpox, the quarantine plant and facilities of the port of New York are unrivalled, the printed regulations judicious, and with proper vigilance the service should suffice to prevent either of these diseases from obtaining access to the country through this avenue."

B. It is impossible adequately to protect the public health of the country against the importation of epidemic diseases by independent local maritime quarantine establishments.

1. The history of epidemic diseases in this country serves to establish the truth of this proposition. Every epidemic of cholera, typhus or yellow fever, and several epidemics of smallpox have been directly imported despite existing quarantine regulations.

2. There is always great difficulty in obtaining sufficient appropriations of public money to defray the expenses of the necessary quarantine establishments and their proper maintenance. It is only possible, during periods of threatened invasion, to procure the considerable sums of money necessary for these purposes, whilst in the interim the money expended is greatly inadequate, though large amounts are constantly needed. When the invader is at our gates it is often impossible to plan, construct or repair, and properly equip and garrison an efficient line of defenses.

3. Rival political and commercial interests are inimical to the perfect protection of the general public by independent and local quarantine.

The port of New York, through which three-fourths of the im-

ports and immigrants enter the country, is in the following peculiar situation with respect to the relations of local health boards: By the health laws of the state and of the municipality of New York, the principal quarantine officer is a member *ex officio* of the municipal Board of Health of the city of New York and of the State Board of Health, and he is also a member of the Quarantine Commission. Neither the state nor the municipal boards have, therefore, a voice in the direction of quarantine. Each of these three bodies consists of a very limited number of members, and each is also entirely independent of any supervision or control by the others. Not only does this anomalous independence exist in accordance with the provisions of law, but there is undoubted evidence of an indisposition of the city board of health to inquire in any manner into the management of quarantine at the port, not being officially under its care.

In a letter dated November 4, 1887, replying to an official communication from the mayor of New York, making inquiries concerning the dangers to which that city was exposed by reason of the existence of cholera at the quarantine station of the port, and the means of preventing its spread to the city, the president of the municipal board of health, after detailing the provisions which had been made for the prompt isolation and treatment of cases of cholera which might develop in the city, explicitly denies official knowledge of the condition of affairs at the quarantine, and farther states that he would regard it as unbecoming for him to discuss it; this, notwithstanding the fact that the quarantine officer is a member of the same board.

4. The last statement illustrates one of the more serious dangers to which the general public is exposed through local maritime quarantine organizations; namely, the possibility of bodies of immigrants with infected baggage being transferred directly from the quarantine station to distant inland communities by rapid journeys, without any prolonged sojourn, or without any adequate inspection or precautions being taken by the authorities of the seaboard cities through which they pass. In point of fact this danger was realized in regard to cholera in 1873, when epidemic outbreaks of that disease occurred in Ohio, Minnesota, and Dakota, which were "caused by cholera poison packed up, in the household effects of immigrants, in Holland, Sweden, and Russia, respectively. These immigrants sailed from healthy ports, in healthy vessels and

were subjected to the usual sanitary requirements of the period. They passed through New York and the intermediate territory without injury to the public health; but when their infected goods were unpacked in the interior of the continent, they liberated the poison which gave rise to the local outbreaks." [Report of Dr. Rauch].

5. It is but natural that municipal organizations should in looking after their own interests, pay little regard to the welfare of distant communities.

In this connection may be noted the indisposition and failure on the part of local quarantine officers to notify the authorities interested of the arrival of immigrants from infected localities. Notwithstanding the frequent paramount interest of inland communities in the efficiency of the establishment and administration of quarantine at the seaboard, the local authorities of the latter frequently evince an unreasonable jealousy of any sort of investigation or suggestion looking to the general welfare.

6. In the absence of any general regulation or supervision, local quarantine measures must, in the nature of things, be exercised with varying degrees of efficiency; the most complete establishment and perfect administration at a few ports might, therefore, fail to protect the country, if defective or inadequate measures of quarantine were practised elsewhere.

C. A national system of maritime quarantine is necessary:

1. It is only by this means that the necessary protection against the importation of epidemic diseases in all our ports can be continuously secured.

2. It is the only practical means by which uniformity of establishment and administration, regard being had to the modifications made necessary by difference of latitude and other circumstances, can be assured. Such necessary uniformity can be obtained by no other arrangement, for the reason that the National Government is alone able to defray the expense of complete quarantine establishments at every port, according to the requirements of each and without regard to the revenue derived from the shipping of any.

3. The benefits of quarantine inure to the welfare of the whole country; therefore, it is just that money should be as freely expended when necessary at one port as at another, without respect to their relative commercial importance. It is manifestly unfair that the seaboard cities and states should, as at present, be obliged

to bear the entire expense of quarantine establishments designed to protect the inhabitants of every region of the vast territory of the United States.

4. A national quarantine, properly administered and conducted by trained officials accustomed to deal with contagious diseases, would tend to prevent panic, to allay undue anxiety, and to favor a reasonable sense of security.

5. Experience has shown that much needless alarm, as well as preventable danger, arises upon the appearance of an unfamiliar epidemic at quarantine stations; as when cholera has shown itself at New Orleans or New York, or yellow fever at Philadelphia or Boston. A national quarantine would go far to do away with the necessity for vexatious temporary interstate quarantines which so seriously disturb inland trade.

6. A national quarantine system, directed in such a manner as fully to meet the requirements of existing sanitary knowledge, would not adversely disturb any commercial interest. It would, on the contrary, do away with many of the embarrassments incident to maladministration of existing local regulations. For example, the healthy passengers of the Italian steamship "Alesia" were detained at quarantine in New York Harbor for a period of fifty-five days, while under an efficient system, uninfluenced by needless fears, those of them who were free from disease could have been safely liberated in ten days at furthest.

7. A national quarantine would not necessarily supersede any existing arrangements regarded as expedient by local authorities. It should be conducted wholly without cost to shipping, and would thus work no additional pecuniary hardship, even if the present fees were to be still exacted by the local authorities.

8. The ability of the National Government, by an existing act of Congress, to come to the aid of local quarantine authorities in answer to the appeal of the executive of any state in time of grave danger, implies a function of very narrow scope and uncertain application. Appeals of this kind are apt to be deferred until the emergency is extreme, and the aid obtained from the Government is, therefore, likely to be rendered too late to accomplish its most important purpose, namely, the prevention of an invasion.

D. A national organization would secure advantages not attainable by independent local quarantine establishments however complete:

1. Suitably arranged and commodious buildings, provided with necessary furniture and appliances at all ports.
2. An efficient corps of trained officials and assistants always on duty.
3. The practicability of the concentration of force, money and attention at any threatened port without loss of time.
4. Officials under control of the National Government, and free, from local political and commercial influences.
5. The objects of quarantine would be furthered by full and reliable consular reports and sanitary inspection of immigrants at ports of embarkation, functions properly belonging to officials of the General Government.

The organization of a national maritime quarantine system in the United States should require:

1. That the whole matter be placed under an appropriate department of the General Government.
2. A central bureau of control established at Washington.
3. A sufficient corps of medical officers and assistants, with nurses, sanitary police, laundrymen, engineers, and officers and crews for boarding tugs, organized at every station. Among the requirements for medical service should be a speaking knowledge of at least two modern languages besides English. The establishment of a school and laboratories for sanitary instruction and research in connection with this service would be an advantage. In addition to the men on duty at the respective stations, there should be a sufficient number of medical and other officials fully trained in quarantine duties and familiar with contagious diseases, unattached and available for immediate auxiliary service at any threatened port.
4. The erection of necessary hospitals, and other buildings, wharves, disinfecting apparatus, wash-houses, latrines, etc., in suitable localities, when possible upon islands at or near the entrances to harbors, and at some distance from the main channel.
5. These stations must be organized and fully equipped at every port of entry of the coast, in such a way as to meet the requirements of each port in the measure of its commerce and immigration, and the special diseases to which it is most exposed.
6. The cost of the establishment and maintenance of the national maritime quarantine should be provided for by appropriation from the national treasury, and not from fees exacted from vessels.

SUMMARY.—Under the present system of local and independent maritime quarantine, the necessary quarters for the detention of large numbers of immigrants arriving in a suspected vessel, are either entirely wanting, or, if at hand, are deficient in equipment or administration or both. It is possible, however, that one port well governed and rich from prosperous commerce, may make up these deficiencies; yet what would this avail even to that community itself, if a neighboring port, only a few hours distant by rail, failed to exclude epidemic diseases. The front door might be doubly barred and bolted, but the enemy would find an easy passage through the defenceless rear. As recent examples thereof may be instanced the danger of an epidemic of yellow fever to which the little town of Biloxi, in Mississippi, exposed in 1886 not only the interior states, but even the city of New Orleans itself, now apparently so well protected by her own system of maritime quarantine; and that to which, in 1887, the defenceless condition of the small port of Tampa, in Florida, exposed not only that state but others.

This want of uniformity in the quarantine defences along our coast must necessarily exist when different authorities supply the money for maintaining the several stations and the purse of one port is longer than that of its neighbor. Another money difficulty is found when the appropriation for the same station comes, as it may, from the coffers of both city and state; possible difference of opinion in the municipal council and the state legislature is likely to endanger the sufficiency or change the direction of the funds to be expended. In any case, the danger to a single port of entry, or even to a single state, is by no means the same as that which threatens the country at large, and communities are not likely to make a larger expenditure than is needed for their own defence. As an illustration of a difference in the conditions of danger which may exist between a port of entry and the interior of the country, may be mentioned the passage of immigrants with infected baggage. The immigrants may come from a healthy port and in a healthy ship, and with the poison securely imprisoned in their baggage, will pass through the port of entry with perfect safety to its inhabitants; the danger will begin in that far interior where the baggage is opened. It is of no interest to that port to have the baggage disinfected, and it is carried on to some uncertain place unhindered to do its fatal work. And here may be pointed out the

rather peculiar position in which America finds itself, in attracting to its shores hordes of immigrants from the older countries. There is in municipalities little disposition to spend more even than is called for to satisfy immediate wants; remote necessities are seldom provided for. A quarantine that is not always in use is not always ready for use. It is only when danger is at its gates, and when, perhaps, it is too late for protection that a city wakes up to its defenceless state. Municipalities are selfish, and knowing that with the trader quarantine is not a favorite institution, and that it is his tendency to sail into that port where the quarantine is most lax, they are assailed with a sore temptation to wink at the neglect of proper precautions, if, by so doing, they may circumvent a possible commercial rival.

In the opinion of the Committee, the difficulties mentioned can only be overcome by the adoption of a maritime quarantine under the control of the National Government.

The danger from immigrants would not be entirely banished, however, though the quarantine of the coast of the United States were perfect; for the way through the British provinces would still be open to these travelers. In the absence of efficient quarantine inspection in the St. Lawrence River, the attempt thoroughly to protect ourselves from importations of epidemics, would necessitate the doubtful and difficult expedient of a land quarantine. The more efficient plan would be to have the same precautions taken at the ports in the British provinces as should be practised at those in the United States, but this course could only be assured through treaty, which our local authorities are not competent to make.

It appears that our Canadian neighbors have already evinced their desire for uniform quarantine laws for the two governments. The Provincial Board of Health of Montreal, recognizing a community of interest in the question of maritime quarantine, have deemed the presence of the Canadian Fish Commissioners in Washington opportune for the adoption of resolutions requesting them to urge upon the American authorities "the necessity of establishing uniform quarantine regulations for both countries." In connection with an efficient system of national quarantine, a harmony in the provisions of law in the United States and in Canada seems indispensable for the full protection of our extensive northern frontier, and our National Government should be strongly

urged to respond actively to the expressed wishes of the Canadian authorities relating to such an important matter of common interest.

In conclusion, the College of Physicians of Philadelphia, through its Committee, earnestly asks your prompt consideration of the matters herein set forth, and your active cooperation in an organized effort to obtain this winter such national legislation as will efficiently and with reasonable security protect the public health, not only from the danger of the importation of cholera and yellow fever during the time that they are epidemic in countries with which the ports of the United States are in communication, but also from the almost incessant conveyance into the interior of the contagion of scarlet fever and smallpox by immigrants. The disappearance of cholera from the quarantine station at New York, without the development of the disease anywhere in the country should be regarded as a fortunate occurrence, but at the same time a serious warning. This country has never yet escaped an epidemic of cholera when it has visited Europe. Sooner or later the disease has invariably been introduced, and has spread more or less widely throughout our land. We should, therefore, profit by the cold season, during which we are comparatively safe from the ravages of two of the most dreaded of our imported epidemic diseases, to prepare against a possible, and, as many believe, even a very probable advent of cholera with the return of warm weather. We should use the present opportunity to arouse public sentiment and our national legislators to the necessity of wise, deliberate, far-reaching, and prompt action in behalf of the general welfare, by the establishment all along our coast of a thoroughly equipped and efficiently directed maritime quarantine.

In the case that your Society determine to cooperate in securing the ends in view, we would respectfully suggest that you at once notify the committee of the fact, and, without delay, authorize a member of your body (whose name and post office address should accompany the notification) to confer with the Committee either by correspondence or in person, for the purpose of deciding upon the details of a bill to be introduced in Congress early in the present session.

If your cooperation be agreed upon, we would further suggest that, as a body and as individuals, you assist in influencing legislation by the following means:

1. The passage of formal resolutions recognizing the necessity of National control of maritime quarantine, and urgently recommending the matter upon the consideration of your representatives in Congress.

2. Strenuous efforts to enlist popular sentiment in support of such legislation.

3. The enlistment of the influence of the local medical and public press.

Finally, in view of the necessity of inaugurating, at the earliest moment possible, the effort to secure the proposed legislation, we would earnestly request prompt action on the part of your Society and early notification thereof.

J. C. WILSON, *Chairman*.

E. O. SHAKESPEARE,

R. A. CLEEMANN.

PHILADELPHIA, Dec. 14, 1887.

Address:

DR. J. C. WILSON, *Chairman*,

College of Physicians, Philadelphia.

REPORT OF THE COMMITTEE OF THE COLLEGE OF PHYSICIANS OF
PHILADELPHIA, APPOINTED TO INVESTIGATE THE EFFICIENCY OF
OUR QUARANTINE ARRANGEMENTS FOR THE EXCLUSION OF
CHOLERA AND OTHER EPIDEMIC DISEASES.

To the President and Fellows of the College.—The acceptance of the germ theory of infectious and contagious diseases, or the probability at least of its truth, places in a new light the management of quarantine for detention and disinfection of vessels and their passengers. Anterior to the promulgation of this doctrine the etiology of these diseases was so obscure, that it is not a matter of surprise that such diverse views existed on the subject of quarantine; as shown by its absolute abandonment in Great Britain, for instance, and, on the other hand, by its enforcement with unreasonable severity in the southern ports of Europe. There was no clear idea of that which was to be guarded against, and, therefore, no measures generally and unreservedly accepted as a means to the desired end.

In view of the nature of the work with which your committee was charged, we found ourselves confronted with two questions of urgent importance:

I. What are the requirements of an efficient maritime quarantine against cholera? *

II. To what extent do the existing arrangements at the ports of New York, Philadelphia, and Baltimore fulfill these arrangements? [We speak of these ports only, because circumstances did not permit more extended personal investigations, and there is no reason to believe, from the published official descriptions, that the conditions of the other ports of entry upon our Atlantic and Gulf coasts are in any respect superior.]

I. In reply to the first of these questions, we cannot do better than quote at length from the editorial pages of a recent number of *The Medical News*, (October 15, 1887, pages 455, 456, 457.)

"Measures of prevention, to give the greatest possible guarantee of success in extinguishing an incipient epidemic of cholera, should, in the first place, be based upon the most exact knowledge we possess of the cause, mode of attack, and manner of spread of the disease; and, in the second place, these measures should be intelligently, thoroughly, and rigidly enforced.

"What are the considerations involved in the first category? Probably nine-tenths of intelligent and experienced physicians all over the world, even including those of India, have for years admitted that there is most convincing proof that the active cause of the disease is a specific, material, living entity, of extremely minute size, endowed with the power of self-propagation, and of exceedingly rapid multiplication in enormous number; that among animals it naturally attacks man alone, assailing him only by way of the intestinal canal; that the evacuations from the bowels contain the active cause of the disease, and that when this agent in any manner—as through drinking water, milk, food, or the handling or washing of contaminated personal effects, etc.—reaches the intestines of another susceptible person, the disease may be thereby transmitted from the sick to the healthy; that the active agent exists in the dejecta of the lightest and most imperceptible no less than the severest and most deadly forms of the disease, and is known to be transportable from place to place through the movements of man and his personal effects.

"Proceeding from this basis, logical deduction and common experience alike demonstrate the absolute necessity and efficiency of such measures of prevention as the following:

"a. Speedy recognition and isolation of the sick; their proper

treatment; absolute and rapid destruction of the infectious agent of the disease, not only in the dejecta and vomit, but also in clothing, bedding, and in or upon whatever else it finds a resting-place.

“*b.* The convalescents should remain isolated from the healthy so long as their stools possibly contain any of the infecting agent; before mingling again with the well they should be immersed in a disinfecting bath, and afterward be clothed from the skin outward with perfectly clean vestments, which cannot possibly contain any of the infectious material.

“*c.* The dead should be well wrapped in cloth thoroughly saturated in a solution of corrosive sublimate, 1 to 500, and without delay, cortege, or lengthy ceremonial, buried near the place of death in a deep grave, remote as possible from water which may, under any circumstances, be used for drinking, washing, culinary, or other domestic purposes. (Cremation, of course, is by far the safest way of disposing of cholera cadavers).

“*d.* Those handling the sick or the dead should be careful to disinfect their hands and soiled clothing at once, and especially before touching articles of food, drinking or culinary vessels.

“*e.* In the case of maritime quarantine, the well should be disembarked and placed under observation in quarters spacious enough to avoid crowding, and so well appointed and furnished that none will suffer real hardships.

“*f.* Once having reached the station, those under observation should be separated in groups of not more than twelve to twenty-four, and the various groups should, under no pretext, intermingle; the quarters for each group should afford stationary lavatories and water-closets in perfect working condition, adequate to the needs of the individuals constituting the group, and supplied with proper means of disinfection; there should be a bed raised above the floor, proper covering, and a chair for each member of the group, each person being required to use only his own bed; there should be a common table of sufficient size to seat around it all the members of the group, who should be served their meals from a central kitchen, and with table furniture belonging to the station and cleaned by the common kitchen scullions.

“*g.* Drinking-water, free from possible contamination and of the best quality, should be distributed in the quarters of each group, as it is needed, and in such a manner that it is received in drinking-cups only; there should be no water-buckets or other large vessels

in which handkerchiefs, small vestments, children's diapers, etc., can be washed by the members of any group.

"h. Immediately after being separated into groups in their respective quarters, every person under observation should be obliged to strip and get into a bath (a disinfecting one is preferable), and afterward be clothed with fresh clean vestments from the skin outward. Every article of clothing previously worn should be taken away and properly disinfected.

"i. Then all of the personal effects should be at once removed to a separate building, washed—if possible—and thoroughly disinfected, or, if necessary, destroyed. After disinfection they should be temporarily returned to the members of groups, when occasion requires a further change of clothing.

"k. Under no circumstances whatever should washing of clothing by those under observation be permitted. All used clothing should be first thoroughly disinfected (by boiling, when possible), and then should be cleansed, the disinfection and washing being done by a sufficiently trained and absolutely reliable corps of employés supplied with adequate appliances.

"l. All of those under observation should be mustered in their own quarters and be subjected to a close medical inspection, *while on their feet*, at least twice every day, in order to discover and isolate as soon as possible new cases which may develop; and, of course, the clothing and bedding of these new cases should be treated without delay in the manner already mentioned. In the mean time a watch should be set over the water-closets, for the purpose of discovering cases of diarrhea, and, when discovered, such cases should be temporarily separated from the rest; they should receive judicious medical attention at once, and precautions should be taken as if they were undoubted, but mild, cases of cholera.

"m. The quarters should be kept thoroughly clean, and every surface upon which infectious material could possibly be deposited, including the floors, should be washed with a strong disinfectant twice daily, and oftener when necessary; evacuations from the bowels should be passed into a strong disinfectant; the hopper of the closet should be then flushed, and finally drenched with a quantity of the same disinfectant.

"n. For the proper attention to the sick, there should be two or more competent and experienced physicians, assisted by a sufficient corps of intelligent and efficient nurses, with hours of duty so ar-

ranged that a physician with a sufficient number of nurses be in constant attendance in the wards of the hospital.

“o. For the prompt recognition and separation of new cases, their temporary medical attention, the proper treatment of discovered cases of diarrhea or cholera, and of other maladies, and the immediate correction of every insanitary practice or condition by constant, vigilant, and intelligent supervision, there should be at least two or more competent and experienced physicians, with hours of service so arranged that a physician is on duty night and day among those under observation; and he should have subject to his orders, at any and every moment, a sufficient and efficient corps of nurses and laborers to carry out properly and promptly his directions.

“p. In order to prevent the intermingling of the various groups, to enforce obedience and order, and to make it absolutely impossible for the quarantined and their personal effects to have any communication with the exterior, [a well organized and sufficiently large police corps should patrol the borders of the stations and the buildings day and night.

“q. Any group among whom there has developed no new case of cholera, or of cholera diarrhea, during the preceding eight or ten days, may be regarded as harmless, and allowed to leave quarantine after each one is finally immersed in a disinfecting bath, and reclothed with clean garments from the skin outward; the garments removed being destroyed, or thoroughly disinfected and cleansed, as above indicated.

“As yet, no reference has been made to the crew, ship, and cargo. What has been said of the treatment of those under observation, applies to every one of the ship’s inhabitants. The observation, isolation, and cleansing of the crew and their effects, could safely be performed aboard ship if necessary. The ship should be thoroughly cleansed and disinfected, particular attention being given to the quarters of the emigrants and crew.”

[Here follows a statement of the result of the investigations of the committee, which showed that there was a deplorable lack of efficient provision and administration of the quarantine establishments which they visited. We have not space to reproduce this, but some of the chief defects found are alluded to in the address of the committee.—ED. COURIER.]

THE NEUROTIC, WITH INDIGESTION AND LITHIASIS.

BY J. MILNER FOTHERGILL, M. D., *Physician to the City of London Hospital for Diseases of the Chest; and Hon. M. D. of Rush Medical College, Ill.; Foreign Associate Fellow of the College of Physicians of Philadelphia.*

The subject of indigestion, in combination with the uric-acid formation, is one which must possess a high interest for American physicians, for the excellent reason that they must so constantly encounter it.

It is a malady *par excellence* of town-dwellers. It belongs to the individual of thin flank. The robust, bulky country squire, with his hands and feet deformed and unsightly from gout, has his counterpart in the lean, spare, dyspeptic town-dweller. The type represented by the massive country squire is rare in the United States, where even dwellers in the country are lean, as a rule. Taking old England, which member of the family is it who makes for the town? The neurotic member, who kicks against the monotonous life of the rustic, who chafes under that dependence upon the weather which agriculture entails; just as the old Puritans of New England were those men who would not endorse the tyranny of Charles I., and who emigrated to face the wilderness and the red man rather than stay longer under his rule. No wonder the descendants of these men are more distinctly neurotic than their English cousins—the children of those who were content to bide at home. If the neurotic member of the family is the one *par excellence* who chooses a town-life, he is, to my mind, not the one who endures it the best, *i. e.*, himself or his descendants. If he personally gets along well enough, his children will manifest the influence of town-life upon their physique. They are delicate in childhood; they grow up dyspeptics. Their children, despite all care, succumb to the maladies of childhood. Each generation is more markedly neurotic till it comes to that bundle of nerves with shrunk viscera—the girl whose uterus remains infantile, and who is the last of her family. It is a terrible story—is it a true story? That is the question. I am seriously afraid it is a true story.

Not that the race is growing puny. The modern Scandinavians cannot get their hands into the hilts of the swords of the old Vikings. At the Eglinton tournament nearly every man had to have

his ancestor's armor "let out"—(probably this was not the term used by the armorer, but it is the modern equivalent). The measurements of ready-made clothes out in the Western states are enlarged to meet the wants of the stalwart youngsters of to-day. On the other hand, the standard of height for soldiers is falling. There are so many little men about now. Town-people are under-sized. The slight, active-brained neurotic spurns the country, and seeks a congenial life in a town.

This neurotic townsman is usually an energetic, hard-working fellow. Certainly he is such in the United States. An affectionate husband he is, for he is distinctly erotic. He is a kind father, very fond of his bright, slight, quick-witted daughters. He likes to see his sons throw themselves heart and soul into their business. What they have to do they do with a will. This is all very well; but behind that neurotic family group a shadowy spectre can be detected by a quick eye. Nature knows nothing of extenuating circumstances. If a family leads an unnatural life they must pay the penalty. "The expansive energy of steam will slay not only the wicked engineer who has neglected his boiler, but also the innocent children playing on the deck overhead.

'Streams will not curb their pride
The just man not to entomb;
Nor lightnings go aside
To leave his virtues room.'

But the flood and the earthquake, like the wickedness of men, in so far as the arrangements of society are not yet adequate for curbing it, must be accepted with resignation as part and parcel of the events which the constitution of our universe necessitates" (Fiske's *Cosmic Philosophy*"). It would seem that a man cannot get the inside track of the Almighty. The Creator has laid down certain laws which the created must obey, or accept the consequences. If a man forsakes the country and becomes a dweller in towns, the first step toward the extinction of his race is taken. Without fresh infusions of new blood from the country his progeny degenerates to extinction in the fourth or fifth generation. Lugol and Boudin say the third generation ends the family in Paris. Hayle Walsh and James Cantlie have found a pure bred Cockney of the fourth generation a rarity. Personally, I only know one, a bright little fellow. Cantlie defied the Guildhall authorities to find a pure Cockney of the fifth generation.

The effect of town-life is to degenerate the physique; and neurotic persons are those who feel its effects the soonest and the most severely. At least this is the result of my investigations.

How stands it with the neurotic town-dwelling American when he presents himself in my consulting-room? He is a spare, worn-looking man, complaining of indigestion, acidity and flatulence. Less commonly he has some skin eruption or other, occasionally he has asthma. He has cold hands and feet. Sometimes he tells that he has observed that he passes more water than he used to do. This evidence of shrinking kidney is accompanied by a large left ventricle, a loud aortic second sound, and a hardening artery—the phenomena of the vaso-renal change (those readers who feel interested in this subject will find it dealt with at length in “Vaso-renal Change *versus* Bright’s Disease”) His nails are reedy, and there is a vascular plexus in the conjunctival aspect of the lower eyelids. Commonly the gum is retracted, and the teeth drawn down. When asked if there are times when little things put him out, or perturb him out of proportion to their real importance, he replies in the affirmative. Are there sediments in his urine? Yes, pretty constantly. Such is the outline of the dyspeptic of the uric-acid formation, who finds the sipping of hot water to ease the pain in the stomach to which he is subject.

In some, in addition to these phenomena, there are very disagreeable sensations. Those around him say he is “nervous.” If they felt what he feels, perhaps they would be “nervous” too. He experiences feelings which throw physical suffering into the background. Last spring my liver was out of order from over-work and east winds, and I then learned enough to comprehend his tale. The whole troop and array of distemperatures vanished (like a horde of evil spirits at the sign of the cross) as soon as an attack of gout fastened on the right foot. Articular gout is not pleasant, but there are worse things than the gout. These unpleasant feelings, to my mind, are linked with the products of later digestion. From three to four hours after breakfast was their favorite time. They would flee after a loose motion of very offensive character, with ill-smelling flatus, or would gradually pass away on getting into the air (probably the offending matters were thus oxidized away). And this personal experience chimes in with the experiences of others. The time of their oncome links them with later digestion. Skatol and indol! Their stench is not less offensive

to the nostril than are they to the brain when circulating in the blood. The effect of a mercurial pill and a seidlitz rivets the bond of their association with the liver, which cannot keep them within the portal circulation, but permits of their escape into the general circulation to exercise their toxic influence upon the brain, the organ of mind.

The overworked man is too commonly an individual of sad experiences, and many a man has committed suicide as the only road of escape from his feelings. Lord Byron found Epsom salts the best means of raising his spirits when depressed, and to clear out the alimentary canal is good practice in these cases.

So much for the individual himself. How about his progeny? "What is acquired by the father is inherited by the child." So wrote George Combe. "The fathers have eaten sour grapes, and the children's teeth are set on edge," says a higher authority. The son is the father accentuated, and, as an affluent dyspeptic, at a comparatively early age makes the round of the watering places of his own country and of Europe. In addition to his father's experience of morbid phenomena he is liable to attacks of very sharp pain in the transverse colon, or the stomach, especially if he has acquired any malarial taint.

But his daughters—the migrainous daughters of hard-working fathers—what sort of womankind are they? *Petite*, active beings, often birdlike in their walk and movements; quick as lightning; acute, sensitive, highly strung, high-minded and quick-tempered; energetic and industrious; neat in their attire; intolerant of dirt—the sight of a cobweb is agony to them; every sense is highly strung, and, when suffering with migraine, on the stretch, till it is scarcely exaggeration to say that when lying in their bedroom they can hear the cat walking across the kitchen floor. Their complaint is of migraine, "face-ache" or "neuralgia" they call it. A one-sided head-ache around the eye, with pain in the eye itself, accompanied by sparks or stars, commonly ending in vomiting. They complain of palpitation, and also of an opposite condition of heart-failure, which differs from syncope in that there is no loss of consciousness. The condition is one of intense suffering. They have choking sensations at times, as if they could not get their breath. They complain of indigestion, with acidity and flatulence, while the bowels usually are constipated. They pass water in considerable quantity, especially when excited, and still more decidedly during

the attack of migraine. Sometimes they pass water in less quantity, but dense and highly charged with lithates. They constantly complain of dysmenorrhea, usually with a scanty loss, but sometimes menorrhagia. Their internal reproductive organs are imperfectly developed, remaining more or less infantile, while the ovaries are tender. Some are quite sexless, others feebly erotic. Some are incapable of impregnation, while others can become pregnant but abort. Some can bear a feeble, delicate child or two; but speaking broadly, they are not a fertile folk. Commonly, they have rheumatism somewhere, usually in their shoulders; because they have a habit of putting their arms out from under the bed-clothes, and throwing them over their heads. These are the people who cannot swallow a pill.

They are charming patients, always attached to their physicians; never out of some doctor's hands long together. Yet they do not get much good, and rarely when they do is it lasting. It is difficult to diet them; for, though they can take good care of any one else, they seem incapable of taking sufficient care of themselves. Experience teaches them comparatively little. When feeling fairly well they forget the physician's advice and warning. They seem able to borrow from themselves to-morrow's energy. They will be the soul of a party one day, ending up with a night at the theatre—the gayest of the gay. Next day is spent in bed, in a darkened room, with a racking headache, the brow contracted with pain, begging to be left alone alone in their misery—the saddest of the sad. At other times they awake with a sharp headache, improve as the day goes on, and dine out in the evening with a sense of enjoyment. Their friends and acquaintances cannot make them out or understand them. They themselves always complain that they can not do what other people do, and that they are not understood, and not unjustly. They are not as other people. Ardent, enthusiastic, capable of great self-denial, they are a race by themselves. They have played an active part in many modern movements.

Such persons, with highly developed nervous systems and small viscera—including an “insufficient” liver, which reverts to the uric acid formation—are those who suffer from lithiasis and are dyspeptics. The presence of the uric acid seems to impair the gastric juice, as to its solvent properties. Sometimes the pain is experienced when the stomach is empty, and relieved by food. Here there exists a quantity of acid mucus in the stomach. An emetic

gives great relief; squeezing the gastric wall and expelling a quantity of acid matter, Dr. C. J. Hare thinks. Hot water, all the better for containing a little potash or phosphate of soda, gives speedy relief. Hepatic stimulants, as ipecacuanha, euonymin, or taraxacum, steadily persisted in, raise the tone of the liver. Chloride of ammonium is often useful. An occasional mercurial pill, followed by a seidlitz powder, produces good results. If the stools are tarry, some podophyllin is indicated. For the lithiasis, lithia is the best uric-acid solvent, for these neurotics do not bear potash well. Phosphate of soda is their laxative. Some like Carlsbad salts.

As to food, they are not flesh-eaters. Animal food adds to the lithiasis. The food of the Patriachs, "corn and wine and oil," is that best suited to them. Fish is permissible; fruit is very good for them. The sugar the cook adds to stewed fruit causes too much acidity with them. Well prepared farinaceous matters are good. Milk puddings made without eggs are good. Cream is excellent. It can be taken with tea and coffee, or soda-water, or as creams—chocolate or other. So is cod-liver oil, especially if there co-exist some lung mischief. (I would strongly advise all readers of this article to narrowly watch the urine of their phthisical patients of the neurotic diathesis, and see for themselves how far lithates are present in it. Recent observations made at Victoria Park Hospital tell of old kidney-mischief in patients who have died of phthisis. In one case of mine the lung trouble had a history of four months, the interstitial nephritis being much older. In another lung case the constant presence of lithates caused me to pronounce for kidney mischief. Both kidneys are extensively fatty, with adherent capsules. Prout wrote that the presence of lithates in organic disease were of evil omen. And one can readily understand that a system endowed with an "insufficient" liver, revealing its incompetence by falling back to the primitive uric acid formation, and handicapped by old-standing interstitial nephritis, can make but a poor fight when assailed by a disease.)

A very curious corroboration of what is written here about the food of these neurotics, at once dyspeptics and lithemic, is furnished by the fact that while the wild dog is a flesh-eater, the highly bred pet dogs of to-day are quickly made ill by animal food. This fact was told me lately by an aristocrat (of the class discussed in this article), and on making inquiries it was found that this fact is well-known to dog fanciers. The collier of the north has the

best of meat for his dog, even if he, his wife and children go without. But if the well-bred dog of distinguished lineage has meat three days consecutively, he is manifestly out of sorts, and commences in the red mange, which it seems is eczema, a skin affection notoriously linked with gout. As the master is, so the dog is. The liver evidently is plebeian, and does not get on well with a patrician existence. Severe bodily exertion in the open air alone enables it to carry on urea formation satisfactorily, or, in other words, flesh-eaters must be of active habits if they wish to avoid the uric acid formation.

Lithemic dyspeptics are very difficult persons to manage or treat satisfactorily, whether as regards their medicines or their dietary. Medicines are apt to disagree with them; vegetable tonics are apt to excite the vesical centres; iron upsets their liver; opium acts as an excitant rather than as a sedative. They, as a rule, dislike milk puddings; they love the sapid meat; they hate giving trouble, or having any food specially prepared for them. Anything which absorbs them makes them forget the physician, his counsel and his warnings. They throw themselves into everything with such abandon as leaves them no thought for anything else. Yet they are highly intelligent persons; and the female neurotic is commonly a very charming little lady. Some rustic neurotics are not petite, but they are never corpulent. George Eliot has a whole series of them in "Adam Bede"—the immortal Mrs. Poyser was one. I am not sure that Mr. Craig, the gardener, was not one too. When Mrs. Poyser was summing up that worthy she concluded, "It was a pity he couldn't be hatched over again, and hatched different." And a pronounced neurotic, well known to me, regrets frequently that Mrs. Poyser's suggestion cannot be carried out.

Civilization it would seem—like everything else in this imperfect world—is not an unalloyed good.—*Med. Record*, Jan. 7, 1888.

A NEW METHOD OF EMPLOYING IODINE FOR ANTISEPTIC PURPOSES.

Antiseptic medicine—not merely preventive, but employing antiseptics as therapeutical agents in the treatment of disease, more especially of a zymotic type—is more and more becoming worthy of the attention of physicians. It will be frequently noticed that

the remedies employed in the treatment of infectious diseases for the protection of those in attendance and for the prevention of the spread of infection often produce satisfactory changes in the conditions of the patients themselves. Thus, fumigation of the sick-room of a scarlet fever patient will often be attended with a marked diminution of the throat symptoms, and with a perceptible decrease of pyrexia, restlessness, exhaustion. It appears to be tolerably well established that the most favorable period for the propagation and development of contagion is in the night-time; perhaps mainly because the sunlight is temporarily withdrawn, and, the house being closed against the free transmission of air, impurities from exhalations, excretions, and various other sources accumulate. Accepting this statement as correct, it occurred to Messrs. J. H. Cass and George Brownen (*Med. Press*, October 5, 1887) that if the materials employed for illuminating purposes in the night could be utilized for the evolution of a disinfectant, a useful preventive of contagion would be obtained. Koch came to the conclusion that the only effective disinfectants besides chlorine, bromine, and iodine are corrosive sublimate, osmic acid, and potassic permanganate.

We must necessarily exclude the mercurial sublimate from our consideration. Valuable, perhaps the most valuable, as it is among antiseptics for local surgical application, its highly poisonous character forbids its employment as a general medicinal disinfectant. Osmic acid and bromine are too expensive for general use, and the offensive odor of the latter would also militate against its employment. Chlorine has the same objections from the disagreeable pungency of its vapor. The potassic permanganate is also comparatively valueless unless employed in considerable strength. Iodine, however, presents none of these disadvantages. It has long been recognized by all authorities as a true germicide disinfectant. Iodoform, which acts by the gradual and continued liberation of free iodine, is now almost universally employed in the surgical application of antiseptics. The deodorizing properties of iodine have been long known, and although it has for very many years been employed for that purpose in the cancer-wards of the Middlesex Hospital, and probably in many other similar institutions, its employment as a general disinfectant has been greatly lessened, owing to the difficulties experienced in its regular and gradual vaporization. Combined, however, with salicylic acid, we find

that it can be readily and permanently incorporated with fats, paraffins, or wax, and when candles made from these hydrocarbons thus treated are ignited, iodine and phenol are evolved in a gaseous vaporized form. The phenol is produced by the decomposition of the salicylic acid, and its amount varies according to the temperature or rate of the combustion. Its presence may be verified by passing the vapors of the combustion through dilute nitric acid, and thus producing trinitrophenol or picric acid. But where the combustion is rapid and complete the phenol is entirely destroyed, as all other *organic* materials, such as eucalyptus, which has been suggested for somewhat similar treatment, must necessarily be. It is not so, however, with regard to the iodine. Being *inorganic*, it is wholly volatilized and thrown out as vapor into the surrounding atmosphere, but it is in no sense destroyed. Its presence in the gaseous products of the combustion may be demonstrated by passing them through a solution of starch, or along a tube moistened with starch mucilage. In either case the iodide of starch is speedily produced, and may be recognized by the usual tests. A very faint odor of iodine may be detected when these candles have been burnt in quantity in a close atmosphere; but this is never unpleasant, or in the least degree irritable to breathe; indeed, in several cases of asthma, spasmodic cough, and "hay-catarrh," the patients have experienced great relief from the iodine-vapor thus liberated. As a deodorizer its action is most marked; the smell of tobacco-smoke is quickly and entirely destroyed by the combustion of these candles in the smoking-room. The air of stuffy rooms and smelling closets may be rapidly purified by the same means. The odors of sulphuretted hydrogen and of ammoniacal air from a close stable have been very speedily and completely discharged by contact with the same vapor.—*Therapeutic Gazette*, Dec. 15, 1887.

BROOKLYN MEDICAL JOURNAL.—This is the title of a new monthly medical journal published under the auspices of the Medical Society of the County of Kings and to be edited by five members of that society. It will contain the transactions of each meeting of that society with original papers and discussions. Such a journal drawing from such a source should have an abundance of excellent material. We wish the new journal success.

COMMUNICATIONS.

DENGUE IN GREENVILLE, TEXAS.

GREENVILLE. TEX., Jan. 26, 1888.

EDITOR OF COURIER.—In accordance with your request I will attempt to describe the epidemic of dengue as it appeared in Greenville, September 1886.

The town is in Hunt County, in Northern Texas, the soil very alluvial. The population numbers about 6,000. Malarial fevers are prevalent every year.

Dengue has never visited us before nor since. The first case was reported about September 4; the last case October 9, 1886, a period of one month and five days; and not over 400 persons of the whole population escaped its painful and sudden visit. The weather was very mild and warm. It rained only once during the time.

The symptoms were pain in the lumbar region generally, then spreading all over the body. The attack commenced most frequently at night toward morning. Patients waked up feeling tired and with slight pains all over the body, and especially in the back. No more sleep was possible, then patients became very restless indeed, soon rolling from one side of the bed to the other: high fever continued for two or three days, then increased two or three days, seldom exceeding 104° . About the second or third day the skin became very red, and soon after the whole surface was covered with red splotches, first noticed about the head. At this time most of the patients would complain of a pricking sensation over the entire surface of the body, when in a profuse sweat the little eruption would appear as large as pin points or larger.

The taste is pathognomonic of this disease, and is most loathsome. A lump of ice would taste as if it had salt and sugar (mixed) on it and this condition sometimes lasted for weeks. The tongue became as rough as an oak board and very dry. I have never seen anything to equal this roughness. The eyeballs became very sore: the least pressure of the fingers would cause the patient

to cry out. They also became very watery. All the mucous membranes were more or less affected. The stools were black and waxy with a very peculiar, indescribable odor. If the patient was predisposed to rheumatism he was certain to have exaggerated rheumatic pains during the entire time of fever which lasted from three days to four weeks. Treatment consisted in morphia hypodermatically and the bromides internally. Quinine only aggravated the symptoms, hot baths did much good, hastening the eruptive stage.

Mortality nil, not a single uncomplicated case died out of the 4,000 here.

F. E. YOAKUM, M. D.

SYPHILITIC GONORRHEA?

GREENVILLE, TEXAS, Feb. 6, 1888.

EDITOR COURIER.—Last summer while I resided in Mexico, I was called upon to treat, as I diagnosed, a mild case of gonorrhea in a gentleman æt. 24. Patient said that exactly two weeks before he had had sexual intercourse with a Mexican woman. He complained of a tickling and occasionally, a burning sensation within the glans. I examined him very carefully with an endoscope, and found the lacuna magna slightly inflamed, but nothing that would indicate syphilis. I prescribed a mild astringent injection and a diuretic. The discharge was muco-purulent and scanty, but increased after each injection. After a month's treatment the patient still complained of these tickling, uneasy feelings, but noticed only a very slight mucous discharge.

Thinking, perhaps, there was a stricture causing all this trouble, I attempted to pass No. 16 (A) bulbous bougie, but found a slight obstruction a quarter of an inch from the meatus. A No. 14 (A) bougie was then passed very readily, and a second examination with the endoscope revealed the same congested surface as the first. Thinking then that I had to deal with a stricture, I used sounds until I had dilated the urethra with a No. 16, the normal size, but the discharge continued as before. I then used the urethrotome, and again dilated with a No. 16 sound. The glans and prepuce were inflamed from the operation for two or three days, and when this inflammation had subsided I could see that the cut surface had become gray, and could feel the induration from the meatus. I then suspected syphilitic gonorrhea or chancre larvé of

M. Ricord. After enquiry I learned that the patient had had sexual intercourse with a woman whom I had been treating, and had examined her the same morning that he had exposed himself, and thoroughly cauterized a chancre on the cervix uteri, and had cleansed the vagina with absorbent cotton. I then put my patient on injections of potass. permanganate and tr. ferri, giving proto-iodide of mercury internally. The discharge soon ceased, but about the end of the third month the secondary symptoms of syphilis made their appearance.

Was this syphilitic gonorrhea, or, was it chancre larvé?

Hammond, who cites more cases of the former than any author with whom I am acquainted, says the symptoms are more severe, the discharge more profuse than in ordinary cases of gonorrhea. This case was as mild from the beginning as an ordinary case of gleet. There was no bulb or any enlargement whatever of the inguinal glands, but Hammond explains this by saying that buboes come only after there has been a solution of the continuity of the parts. There was no induration until after the operation, nor an obstruction sufficient to indicate chancre larvé. No pain after urination. If buboes or enlargements of the near glands take place after there has been a solution of continuity of the parts, why did this not occur after the operation, when the chancre was first noticed? I would like to hear the opinion of others upon this subject.

A. B. ROBERT, M. D.

DOCTORS DYING OUT.—Accustomed as we are in America to the overcrowding of the professions, as if by a law of nature, it seems scarcely conceivable that in a country like France the numbers of the medical profession are actually diminishing, notwithstanding the increase of population. In the four years 1883-6—as we learn from the *Medical Record*—the number of diplomas annually granted by the medical schools of France steadily diminished from 662 to 546, while the number of physicians was also as steadily reduced, of course, by retirement and death. The phenomenon is partly explained by the circumstances that the falling-off is in the rural districts, where French thrift, with penury and “proprietary medicines,” would naturally tend to starve out the practitioner. It would be a happy thing if we could make up the rest of the accounting from improved sanitary conditions, but these will not exterminate the doctors for some time to come.—*Sanitary Era*.

NOTES AND ITEMS.

THE WILLIAM F. JENKS MEMORIAL PRIZE.—The First Triennial Prize, of Two Hundred and Fifty Dollars, under the Deed of Trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Diagnosis and Treatment of Extra-Uterine Pregnancy."

The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that "the Trustees, under this deed for the time being, can in their discretion publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may in their judgment be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published the distribution of said essay shall be entirely under control of said trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia."

The prize is open for competition to the whole world, but the essay must be the production of a single person.

The essay, which must be written in the English language, or if in foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., addressed to Ellwood Wilson, M. D., Chairman of the William F. Jenks Prize Committee, before January 1, 1889.

Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if no essay submitted is considered worthy of the prize.

MYOPIA IN RUSSIA.—The Russians appear to be as prone to become myopic as their neighbors the Germans. Professor Adamyuk, of Kasan, has published in the *Westnik Oftalmologie*, a series of examinations of the refraction in pupils at a school. Each pupil was kept under careful observation from his entry into the school until his exit thence. The investigations continued for ten years. Amongst 317 first year's scholars, Professor Adamyuk found that 165, or 52 per cent, were hypermetropic; 106, or 33 per cent, were emmetropic; and 45, or 14 per cent, were myopic. One case has been rejected out of the total 317. In the course of the year the refraction altered very notably. Myopia made progress in 90 per cent, hypermetropia only in 51.6 per cent., whilst 32 per cent of the pupils who were emmetropic at the beginning of their school career underwent deterioration of their accommodation, generally in the direction of myopia. Apart from the purely ophthalmological aspect of professor Adamyuk's researches, it is interesting to note how a branch of the Aryan race, comparatively young to civilization, are already subject to all those psychological and pathological conditions which have generally been considered to be the essential results of political and social decay in older nationalities. Not only does the Russian mind tend to become excited on complicated questions about divine right, democracy or systematic anarchy, state churches or dissent, and other questions so familiar to us, the consideration of which has become part of the very nature of Western Europeans and Americans, but the eyes of young Russians appear to be no stronger in resisting the strain of continuous reading than are the eyes of many Westerners whose ancestors may have been able to read for centuries. Questions of hygiene, however, are connected with disorders of the accommodation in schools; and, lastly, though older races may include many individuals who are mentally and physically worn out, young races may not be so ready, as a whole, to bear a strain of intellectual education to which they have not been accustomed.—*Brit. Med Jour.* Dec. 17, 1887.

WEALTHY PATIENTS IN A CHARITY HOSPITAL.—Dr. Norman Bridge, one of the attending physicians to Cook County Hospital, has been severely criticized by the *Chicago Tribune* for refusing to treat as charity patients persons able to pay for their treatment, but who had been admitted to the hospital through political favoritism.

Instead of condemning, the press should commend the action of Dr. Bridge. He has deserved well of the State and of the profession. One of the crying evils of the present day in all our large cities is the abuse of medical charities. Hundreds and thousands of people who are abundantly able to pay a physician avail themselves of charity treatment in hospitals and dispensaries which are intended for those who are destitute.

Since the above was in type we find in a later issue of the *Bost. Med. and Surg. Jour.*, a note denying the accuracy of the above statement. He says: "The hospital incident consisted simply in my sending a private patient to the hospital to board as a pay-patient while I made a surgical operation for her, for which I received the usual fee. This was a convenience for the patient, and was in pursuance of a regulation of the hospital long in vogue. The personal malice of the *Tribune*, growing out of other and chiefly political considerations, led that paper to charge—among the manifold wickedness it has attributed to me—that I had violated a rule that applies solely to usual hospital or charity patients, that is, that doctors should serve without fee or reward. This rule was never violated to the breadth of a hair by myself, or by any other attendant, so far as I know."

THE INTERNATIONAL JOURNAL OF SURGERY AND ANTISEPTICS is the name of a new candidate for favor in the field of medical journalism. It is a quarterly, published at 85 Williams St., New York. The first number has sixty-four double column pages, and contains a number of most excellent papers, the longest and most important of which is that by the editor, Dr. Milton Josiah Roberts, entitled "A New System of Operative Bone Surgery," being the paper presented by him to the section on surgery of the Ninth International Medical Congress.

The cover of the journal is novel and suggestive, containing at the center above a vignette of Sir Joseph Lister and, in the tracery of leaves which forms a wide border around the page, there are woven in pictures of all sorts of surgical instruments and devices.

We would suggest to the publishers that a different quality of paper would show the illustrations to better advantage, and greatly improve the appearance of the journal.

THE AMERICAN MEDICAL ASSOCIATION MEETING AT CINCINNATI gives every promise of being a complete success. Arrangements

are well under way to secure this so far as the local committee can provide for it. They are having weekly meetings to arrange all details. The Music Hall has been secured for the meetings, giving ample accommodation for section meetings under the same roof with the hall in which the general meetings are held, and our impression of the building warrants the prediction that the members will find the acoustic properties of the rooms there better than they are in the rooms in which most of the section meetings were held in the Exposition Building here, with regard to which we remember there was considerable complaint. It is expected that a reduced rate will be obtained of one and one-third fare for the round trip. A reception at the Art Museum in Eden Park, and a supper at the Highland House on the hill-top, and a concert by the Apollo Club are among the entertainments promised.

HEALTH OF THE JEWS.—Much prejudice is said to have been excited against the Jews during the middle ages on account of their comparative immunity from epidemic diseases, which was attributed to the devil's friendship, instead of to the hygienic ordinances of Jehovah. It would appear that they are also at the present time hardly less fortunate in their physical condition than in their worldly circumstances. A recent writer, according to the *Medical Press*, who has been studying the Jews of the German empire, finds that in Prussia, from 1822 to 1840, the Jews increased $3\frac{1}{2}$ per cent. more than the ordinary population. In Furth, where the average duration of life among Christians was 26 years, among the Jews it was 37, and in Frankfort, also, the average longevity of the Jews is 11 years in excess of that of the Christians. The same can be said of Algiers. During the prevalence of the cholera in the south of France, out of the large Jewish population which dwelt in the infected districts only seven persons succumbed.—*Sanitary Era*.

THE BROOKLYN MEDICAL JOURNAL made its debut with the commencement of the year. As its leading editorial remarks, "the appropriate question to ask seems to be not why publish a medical journal in Brooklyn, but rather, why have so many years been permitted to pass without issuing such a publication?" Certainly, with its more than 1,000 physicians, its hospitals and dispensaries, its colleges and societies, the profession of Brooklyn should furnish the editors of its one medical journal an abundance of the best material to make that journal among the best in the country.

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ORIGINAL ARTICLES.

CRITICISMS ON THE PRESENT MODE OF TREATING CONJUNCTIVAL AFFECTIONS WITH SUGGES- TIONS FOR THE USE OF A NEW REMEDY.

BY HENRY L. WOLFNER, M. D., *Assistant to the Ophthalmic Department
and Lecturer on Use of Ophthalmoscope, St. Louis Post-Graduate
Medical School and Polyclinic.*

[*Read before the St. Louis Medico-Chirurgical Society, Feb. 8, 1888.*]

THE object of this paper is, first, to criticise the present mode of treating acute conjunctival affections, and second, to mention a new remedy in the treatment of chronic conjunctivitis and corneal opacities due to inflammatory infiltration.

In looking over the text-books and monographs written on this subject, it will strike even a casual observer as curious that ophthalmologists should all agree to use the same remedies in the treatment of acute conjunctival affections.

The list commences with sulphate of zinc or boracic acid and ends with nitrate of silver; and comprises all therapeutic agents commonly known as astringents. If specialists are asked, why do you use astringents in this class of diseases, the answer is invariably, that their patients get well under their use, and therefore, why should they discard them?

Besides, all ophthalmologists who are quoted as authorities on this subject recommend their application. It is in this, as in a great many other medical fallacies, that the physician will do a certain thing, simply for the reason that his grand-father did the same, not because his common sense dictates any such line of treatment. Dr. Michel, several years ago, read before the State Medical Society¹, a paper on this subject, in which he denounced the use of astringents in acute conjunctival inflammations, and gave his reasons for abandoning their use. For some reason or reasons the profession at large has not accepted his suggestions, and prefers to travel in the same old rut, which leads to an immense number of cases of chronic inflammatory granulations.

But to revert to the action of astringents on delicate vascular tissues. This can best be studied by placing either the mesentery or web of a frog's foot under the microscope and watching the result of different applications. When an astringent is applied, the effect is absolutely the same as that produced by a mechanical irritant; the arterioles immediately contract, leaving the tissue almost bloodless. If the process would end here, no doubt the astringent would act as ophthalmologists usually expect it to. But wait only a short time and you will see a dilatation of the vessels to almost double their original size, and this will happen whether the irritation be kept up or not. Astringents therefore act as simple irritants, and should, therefore, only be used in ocular maladies requiring stimulation and irritation. Whenever this statement of the action of astringents is made, men who are devoted to their use, immediately want to know why their patients recover, and why they have usually been successful in treating this class of diseases. This explanation is of course theoretical, but experiments are now being made by Dr. Michel to prove that the explanation offered is the true one. When astringents are first used, the patient complains of pain for the simple reason that the exposed nerve terminals in the cornea are irritated. After using the drops a week or two, the patient no longer complains, he will tell you that the drops only feel cold and that his eye is beginning to get better. The

¹Mo. State Medical Society. Meeting 1878-9.

first instillations caused considerable irritation: more blood was, in consequence sent to the part and the result of this intermittent hyperemia, which occurred two or three times a day, was an hypertrophy of the epithelial tissue of the cornea. When the cell proliferation had gone on to an extent sufficient to protect the delicate nerve filaments, the pain of course ceased, and the conjunctivitis got well, because the astringent could do no more harm.

Examples of hypertrophy from intermittent irritations are met with every day. The thick, horny, epithelial masses in the laborer's hand, and corns on the feet are caused in this way. Let a similar inflammation to that met with in acute conjunctivitis occur in any other mucous membrane in the body. Would anybody think of applying the same treatment? Not for a moment. A patient comes to you with a slight acute coryza; you know that he will recover in a day or two, even if no medication is instituted, and prescribe some harmless sudorific and the disease disappears.

The mucous membrane of the nose is infinitely tougher and less sensitive than the conjunctiva yet you would not think of washing out the nose with a solution of nitrate of silver. At present almost everybody has accepted the germ theory of disease as the correct one, and germs have been found which are supposed to be the cause of these different conjunctival inflammations. Why not use a germicide and cure the disease by removing the cause? Because these affections are as a rule self-limiting, and will get well in one-half the time, if you do not interfere by instilling your germicide astringents. What then is the proper treatment for acute inflammations and congestions of the conjunctiva?

Drop nothing into the eye that will irritate, and therefore not even a drop of water. Use soothing applications to the closed lids, either hot or cold, whichever is more grateful to the patient. Most cases will be benefited more by the use of compresses, wrung out of a cold solution of opium than by anything else. The compresses should be light and should be frequently dipped into the solution, each application lasting between fifteen minutes and a half hour and repeated four times a

day. In addition to this apply a bland, unirritating unguent to the lashes before retiring, and in this way prevent the lids from gluing together in the morning. Purulent and gonorrheal ophthalmia should be treated exactly in the same way, except that the solution and salve must be used more frequently and the parts kept scrupulously clean. No irritating drops, no syringing out the conjunctival sac with warm water, no nitrate of silver, no bichloride of mercury, and your patient will get well. This plan of treatment has always been used in the eye department of the Polyclinic, and we have yet to record the first failure. This will not be believed by most ophthalmologists, yet it is a fact, nevertheless, that not one of our cases of purulent or gonorrheal ophthalmia has resulted in loss of vision, or had even an ulcer of the cornea, unless the patient was seen after these changes had already taken place. Bichloride of mercury is just at present the popular remedy in the treatment of purulent ophthalmia: it is hoped by the use of this powerful germicide to kill any organism that may have caused the attack, the gonococcus, for instance. This germ may be the cause of the trouble, but to my mind it is extremely doubtful. The gonococcus cannot be demonstrated to be in the secretions after the third or fourth day; yet when inoculation was in vogue it was always recommended to use the pus from an eye that was getting well. The bichloride has also been used recently for ordinary catarrhal ophthalmia, of which we have so much at present, on the supposition that it was a microbe that produced the disease. This affection usually disappears in a short time when the external treatment which was suggested is used. Formerly the astringent was considered the proper treatment for this disease, and, according to report, the patients did as well as they now do under the bichloride. This simply goes to prove that the patients got well on account of the hypertrophy of the epithelium, for nobody, I think, classes the bichloride with the astringents; but we do know it is a very good irritant, and if astringents cure by irritation, certainly the bichloride should act as well as any of them.

A great deal depends on the constitutional condition of the patient, in treating conjunctivitis. Patients who are healthy

will not suffer long with acute conjunctivitis, even if absolutely nothing is done for them. But let a patient present himself who is run down, who has a scrofulous tendency, or who has a syphilitic taint, and unless remedies addressed to these particular affections are used, your local treatment will be of very little avail. Eye specialists, as a rule, pay very little attention to general pathology, and it is for this reason and astringents, that so many chronic eye cases are seen. Take a case of simple hyperemia of the conjunctiva, in a very weak person, instill your astringents regularly, give no remedies to improve his general health and in three or four weeks you will have a beautiful case of hypertrophic granulations on your hands. Chronic conjunctivitis is seldom seen in healthy subjects; to attend to your patient's general health is, then, the first indication. If the inflammation, congestion or granulations partake of an indolent character, if the cornea is infiltrated with inflammatory products and there are large vessels extending across it, it is then your duty to use your irritants as stimulating applications.

It is in this class of cases that the new remedy I wish to mention is found most useful. About one year and one-half ago, I was told by several practitioners who attended the Post-Graduate School, that there had been a traveling eye doctor in their neighborhood, who was very successful in the treatment of chronic conjunctival inflammations; the remedy he used looked like molasses and tasted sweet. Knowing that sugar had been used, at least in the lower animals, in interstitial corneal infiltrations with considerable success, and that it was still sometimes applied to granulating ulcers for its slight caustic effect, I classed molasses with the other irritants I have mentioned, and made up my mind to see if there was any special virtue in this new medicament. It has now been used in almost every case of chronic conjunctival affection that I have seen at the clinic, and for the last year I have also used it in private practice. My observations lead me to believe that it has some special virtue, as cases which had formerly been treated with sulphate of copper, nitrate of silver and jequirity unsuccessfully, almost immediately commenced to get better under its use. Most good has been accomplished in those chronic cases, in which although

the granulations have become flat, the pannus the result of the granulations, has not disappeared. According to the amount of stimulation the eye will bear, the instillations are made every day, every other day, or only once or twice a week. The mode of application is very simple; a small quantity of molasses is taken up on a probe and allowed to drop into the everted, lower, retrotarsal fold of the conjunctiva.

SYPHILIS OF THE EXTERNAL, MIDDLE AND INTERNAL EAR.

BY M.D. JONES, M.D., *Assistant to Chair of Otology, Post-Graduate School.*

[*Read before the St. Louis Medico-Chirurgical Society.*]

WE know that there is great difficulty at times in determining if a patient has middle or external ear trouble, or both. This is not surprising when we reflect how little informed we are of the labyrinth in health. Formerly it was thought that the cochlea is essential to hearing, but most competent observers have reported cases of complete exfoliation of it, and still the patients not only could hear but distinguish musical notes. The idea too, that interference in co-ordination is indicative always of something wrong with the semicircular canals, is seriously questioned. Still clinical experience warrants us in accepting broadly certain facts, viz., that the vestibule and ampulla are for the perception of noises, the cochlea for the perception of periodic vibrations, or tones, the apex vibrating more readily to low notes and the base to high ones; and that the semicircular canals have nothing to do with hearing, but preside over co-ordination. Ménière's disease is a bugbear to many. It is rare, and the name should be confined strictly to hemorrhage in the semicircular canals. There is but one sure sign of disease of the cochlea, and that is absolute deafness.

Otherwise no matter how carefully the auditory canal is closed, sound will be heard by bone conduction. Sudden impairment of hearing with tinnitus, nausea, vertigo, and staggering gait while pointing to internal ear trouble, may be due to middle ear involvement, or even to hardened cerumen in the auditory canal.

But if in addition to the vertigo etc., we find aerial conduction better than bony, the hearing better in quiet than in noise, and, Roosa would add, hearing conversation relatively further than the tick of a watch, we may feel pretty sure of internal ear trouble. Of course the history of the case is an important factor in making a diagnosis. One of our writers thinks that acute inflammation of the labyrinth, is often wrongly diagnosed as cerebro-spinal meningitis. The post-mortem dissections of internal syphilitic ear invasions are scanty.

Moos reported a case where the hearing was rapidly lost; the external and middle ears were sound, but there was periostitis of the vestibule, and small celled infiltration of the membranous labyrinth. Gruber's case showed great vascular injection of the membranous labyrinth with thickening.

Dr. Baratoux of France has presented a report on 43 post-mortems made on children who were the subjects of inherited syphilis, as shown either by lesions on them, or on their parents. Out of this 43, 27 were found with middle ear lesions; 4 with internal, and 12 with both middle and internal ear troubles.

Fortunately acquired syphilis shows a fondness as well, for the middle, and not for the internal ear. I believe that syphilis plays a more important part in middle ear affections than we usually ascribe to it.

The following case is an illustration of this class of affections :

Mrs.—æ. 30, came to me for treatment last September, complaining of a dull pain in the right ear.

The hearing was found slightly affected on that side, with marked general redness of the membrane.

The voice was husky, and the pillars of the fauces, the posterior wall of the pharynx, and the soft palate, were of a dusky

red color. She called my attention to a cicatrix that encircled the opening of the right external auditory canal, and which also involved the tragus, anti-tragus, and most of the concha. The parts looked as if they had been burned, and the contraction that had followed was considerable, causing a good deal of disfigurement, and leaving the mouth of the meatus narrowed one-half. She stated the ulcer appeared at the time her throat began troubling her, two months before, and healed only after persistent use of iodoform.

She was lost sight of until the middle of December, when she appeared again with an ulcer on the left pinna, that corresponded exactly with the cicatrix on the right one. The ulcer had shown itself about ten days before she came to me. It had now ragged edges, and on the bare cartilage were a large number of superficial holes as is if made with a fine awl.

Between these holes was a network of wavy erosions, mostly all converging to the mouth of the meatus. As before the voice was husky, with a dusky red look of the mucous membrane of the pharynx. She complained of a dull ache in the ear, of snapping noises, of autophonia, and of severe neuralgic pains of that side of the face. Examination disclosed the hearing much impaired ($\frac{2}{3}$), and the Mt., of a dirty red, like stasis, instead of arterial congestion. This middle ear trouble had begun two days before. She was directed to report the following day, but three days intervened before she returned, and stated she had become suddenly deaf during the past night without any warning, in the left ear. Careful testing proved her statement to be true. The middle ear trouble on the left side was looking decidedly better. The soft palate was intensely congested, and in the center of it was a small ulcer, with the appearance of a second one, near by, soon to follow. An inquiry about specific infection was met with steady denial, and an indignant withdrawal from the office. The next day the husband came, and reported there were two large holes in his wife's soft palate. He denied having infected her, but could not answer for her good behavior, as her wild conduct had led several times to a temporary separation. This was the last visit from either of them.

OBSTETRICS AND GYNECOLOGY IN FRANCE.

BY E. S. McKEE, M. D., CINCINNATI.

MASSAGE during parturition is productive of four beneficial results, according to Dujardin-Beaumetz. It excites uterine contraction, rectifies vicious positions, favors delivery by expression and arrests hemorrhage.

Hemorrhage during pregnancy due to varicosity of the veins of the genitalia, has been reported by Pinard, Boisard and Mougeat. In cases of hemorrhage occurring during pregnancy it would be well to remember this as a possible cause.

A new symptom, characteristic of cancer uteri, has been brought out by Petit, Troisier and Raymond. Each of these gentlemen found the existence of an enlarged lymphatic gland above the left clavicle in cases of cancer of the cervix uteri.

Cracked nipples are treated with great success by Pinard, as follows: As soon as there are any appearances of cracks or even tenderness of the nipples, a compress folded in four, and steeped in boracic acid solution, three or four per cent, is applied. Oil silk is placed over the compress to prevent evaporation; over this, a layer of cotton wadding, and the whole secured by a bandage.

Dysmenorrhea in its most violent forms has been relieved by Moniere by giving an enema, consisting of bromide of potassium and chloral, 30 grains of each; one half of this amount to young girls.

A case of dystocia from persistence of the hymen has been reported by Charpentier. This is the third case seen by this writer, which, together with the amount of literature cited, would lead to the supposition that it is not so infrequent, or, as some believe, never present.

A needle holder, which is certainly an improvement on its predecessors and is quite a good instrument in perineal operations, has been invented by M. Possi, of the Hospital Lauricenne, Paris.

Palpation of the shoulder as a means of diagnosing the

position of the head in cases where this cannot be readily made out, is recommended by Riviere.

Incomplete inversion of the uterus, which resisted all attempts at reduction under chloroform, has been very nicely managed by M. Dumenil, of Rouen, by means of the elastic ligature. It was applied with the object of ablating the procident portion. The ligature was an elastic band of rubber, 4 millimetres in diameter, and was applied around the well formed pedicle at the level of the neck. At the end of 17 days, to his surprise, there was neither odor of gangrene nor expelled detritus. The cord came off and he found the uterine cavity perfect. He thinks it possible that the constriction, provoked contraction of the uterine muscle, which, little by little, expressed itself from the ring formed by the constriction. The method merits trial, offering reduction, assuring section if reduction fails. M. Boucet, of Lyons, makes another favorable report.

The death rate of La Maternite is shown by a chart, the preparation of Prof. Tarnier. This chart extends back to the year 1792, and is divided into three periods. The first, the period of inaction, the death rate averaged 9.3 per cent. It ran some years as high as 20 per cent (murder). The second period, that of hygiene, the mortality descended abruptly to 2.3 per cent. This shows wonderful results attained through the use of antiseptics in this hospital, which is a tumble down old building, a convent of the sixteenth century.

Hysterectomy for cancer of the uterus has been held rather in disfavor by the French, possibly because it is in such high favor among the Germans. Its popularity in Germany is doubtless due in part to its disesteem among the French. Sauve, of Paris, thinks the operation does not deserve the disrepute with which it is regarded in France. It is capable of affording the patient a long period of ease, and if it returns after the operation it is attended with less pain. It is not more difficult than the other abdominal operations, and the statistics are constantly improving. Colpo-hysterectomy should be the chosen operation, and laparo-hysterectomy reserved for cases where the body of the uterus is too large to pass through the vaginal wound. He recommends the most vigorous antiseptics. Iodoform and especially

iodoform gauze, is much more valuable than carbolic dressings. As a rule he prefers to apply sutures without drainage. Richelot considers the indications for vaginal hysterectomy to be carcinoma uteri and particularly the primary carcinoma of the corpus uteri, carcinoma of the mucous membrane without visible border of the disease, carcinoma of the collum uteri with extension on the posterior vaginal wall. In those cases in which it would seem possible to remove the disease entire by an extensive operation, he thinks total extirpation should be performed, as by this means the lymph vessels can be more thoroughly removed. He also thinks the total extirpation indicated in cases of severe retroflexio uteri and in fibroids with serious symptoms and stubborn prolapse. As to the technique, Richelot thought the principal difficulty of the operation lies in the trouble with which a ligature is tied about the ligamenta lata in a secure manner. With the object of shortening the operation he recommends the application of long clamping forceps to the ligamenta lata and allows them to remain thirty-four to forty-eight hours. This does away with the sutures and drainage. Duplony objected to the pressure on the rectum caused by this clamp forceps. In one case he had gangrene from it. He prefers the suture for simple cases and reserves the clamp for the more difficult. Péan claims the priority of this preventive method of controlling the hemorrhage, and was the first in France to perform the total vaginal extirpation of the uterus. He claims the application of the clamping forceps to be unnecessary, and thinks it quite easy to draw down the ligamenta lata after the operation and ligate the bleeding vessels in loco. In complicated cases he allows the forceps to remain for thirty-six hours and has never had any bad results.

Electricity in the treatment of uterine fibroids has gained very much favor in the eyes of the profession of the world, from the investigations and writings of that earnest worker Dr. Apostoli, of Paris. He has supplanted the old and in many respects imperfect method of applying electricity, by a procedure for which he claims greater precision; more energy yet tolerable; better localized; thoroughly under control; and more scientifically exact. He considers the positive pole "the medicament par excel-

lence" in bleeding or hemorrhagic fibroids. Apostoli does not claim to entirely remove the fibroid tumors, but to reduce them in size and to relieve their symptoms until the patients no longer know they have a tumor. This cure remains permanent to those who carry out the treatment properly. The following is a short summary of the directions and precautions which he gives: Absolute and regular antiseptic irrigation of the vagina before and after the operation. Let the puncture be shallow, not more than one or two centimetres, and made by a small steel trocar or needle. Make the puncture in the most prominent part of the tumor, when possible in the posterior cul-de sac. Be careful to ascertain the seat of pulsation and thus avoid the puncture of an artery.

Apostoli's method has gained great credence in Great Britain by the advocacy of such authorities as Playfair, Robert Barnes, Macan, Sir Spencer Wells, and the Keiths, father and son. Especial praise is given by these to the treatment in cases of hemorrhage from uterine fibroids.

Keith has recently reported his hysterectomies for fibroid tumor of the uterus, and gives the mortality of all cases of all operators, if they have reported every case, at 35 per cent. This he thinks a terrible mortality. He says it may be higher. In comparing the electrical treatment of Apostoli, he remarks: "I say it deliberately, hysterectomy is an operation which has done more harm than good and its mortality is out of all proportion to the benefits derived by the few." Keith accepts *toto animo* the teachings of Apostoli. In less than five months Keith and son applied electricity in strong and accurately measured doses more than 1200 times upon more than 100 patients, the majority being cases of uterine fibroid. The labor of these operations was very great, but it opens out a field for study which daily increases in interest. Several patients came to them for hysterectomy for uterine fibroids. After treatment by Apostoli's method these women have all gone home without operation, with menstruation almost normal and improving after their return. In every case the tumor was gone, in one instance only has there been a return of hemorrhage. The tumor had gone down two-thirds and she was allowed to leave town too soon. Should these improve-

ments remain permanent, and from the experience of Apostoli there is every reason to expect they will do so, the field of hysterectomy is reduced to the narrowest possible limits. "I would consider myself guilty of a criminal act, were I to advise my patient to run the risk of her life before giving this treatment a fair trial."

The endometrium is nearly always extensively diseased in cases of uterine fibroids, hence the hemorrhage will be arrested by cauterizing it. In all cases of metrorrhagia the author places the positive pole within the uterine cavity, and uses the negative pole in other cases. This treatment has good results in neuralgias, especially those of the ovaries. Subinvolution, versions and flexions are successfully treated by the enthusiastic author. The system is so intricate and requires so much time to properly master it, that few of the many who visit Apostoli's clinique find it possible to stay a sufficient length of time. In fact it is work which belongs largely to specialists.

CROWDING OF POPULATION IN CITIES.—CHAS. F. WINGATE in a valuable paper in the *Annals of Hygiene* for February on "The Tenement House Problems" gives the following tabular statement showing the extent of crowding of the population in several of the principal cities of our country, giving the number of houses, population of the cities and the average number of persons to each house:

Cities.	Population.	Houses.	Av. inmates per House.
Philadelphia,	847,170	146,412	6
Brooklyn,	566,663	62,233	9
St. Louis,	350,518	43,026	8
Chicago,	503,185	61,069	8 $\frac{1}{4}$
Baltimore,	332,313	50,833	6 $\frac{1}{2}$
Boston,	362,839	43,044	8 $\frac{1}{2}$
New York,	1,206,689	73,684	16 $\frac{1}{2}$

In New York, however, he says that the figures in the table by no means convey an adequate impression as to the crowding in the tenement house districts: Of the total number of dwellings in New York, 10,314 contains one family each, or six persons, including domestics; 16,982 houses or flats contain one family on a floor, or twenty-five persons; while 18,966 tenements accommodate fifty persons each on an average. This, he states, is unexampled crowding.

CASES FROM PRACTICE.

CONGENITAL HYDROCEPHALUS.

BY G. T. BARTLETT, M. D., POPLAR BLUFF, MISSOURI.

[*Read before the Southeast Missouri Medical Association, in Semi-Annual Session, at Marble Hill, November 1, 1887.*]

Mrs. B., æt. 24, had been married twice, confined three times. No trouble until the last. One child by first marriage—easy birth and a healthy child. First child by second marriage the same. August 2, 1887, I was called to see Mrs. B. I found Dr. C. N. Jenkins in charge of the patient, and I gleaned from him the following facts: That he had been called several hours before and found the patient in charge of a midwife, who informed him that the lady had been in hard labor for several hours before his arrival. He found a breech presentation, the breech having descended low in the inferior strait. The labor progressed slowly until the child's whole body, except the head, had escaped when the progress of the child (it was a male) ceased; and the child had naturally perished in this precarious position. The pains were hard and the uterus was contracting with sufficient force to expel a child in any ordinary labor.

I found by palpation the uterus unusually large at this stage of labor, considering the expulsion of all of the child (except the head) and the *liquor amnii*.

Dr. Jenkins had concluded that he had a twin birth to deal with, and that in all probability the head of the second child had dropped into the pelvis and engaged the head of the first child, and checked the progress of labor. But the peculiar roundness of the uterus, and no outlines of the second child, nor any pulsation of the child's heart, together with a peculiar hardness, exceeding ordinary labor, naturally raised some doubts at this advanced stage, of the cor-

rectness of the diagnosis. I was inclined at first to accept the conclusion of Dr. Jenkins on my first impression, but as I began a more critical examination I began to doubt, and serious questions began to present themselves for some solution of the grave problems now before us.

Our first conclusion was to administer an anesthetic of alcohol, chloroform and ether. This was supervised by Dr. Jenkins, while I made a further and more thorough examination, by carrying my right hand into the vagina up as high as the neck of the womb, where I found the child's neck grasped by the os. By some manipulation I succeeded in relaxing the os sufficiently to pass my index finger around the base of the skull, when, to my surprise, I found the head of the child large enough to engage all of the upper portion of the superior strait of the pelvis. I was not able to reach any sutures of the head on the account of the great contraction of the uterus, that had greatly increased under the influence of the anesthetic. My only conclusion now reached, and I so expressed myself to Dr. Jenkins, was that we had a case of congenital hydrocephalus to deal with, and our only hope of success, for the safety of the mother, was to perforate the cranium in some way, and dispose of this superabundance of water, and then attend to the delivery of the head, and free it from its prison walls. My only instrument at hand was a pair of lateral curved scissors, such as you all carry in your pocket cases, and with this little instrument in the palm of my right hand, I carried it through the vagina and into the uterus, high enough to reach the right ear of the child, when partially guided by the *meatus auditorius externus*, I plunged the points of the instrument through the base of the skull into the cranium. I forced the points of the scissors apart as far as I could without success. I then forced my index finger through the rent when my anticipations were crowned with success, and "the waters came forth," and by the powerful contractions of the uterus the head was collapsed and disengaged, and rapidly passed through the inferior strait into the world.

[] We had no means at hand by which to weigh the child, but by the permission of the father, we refilled the cranium with water, and closed the rent with a few sutures. The child was small, but well developed, except this monstrous head, only the child had the appearance of having been poorly nourished in utero. The face of the child was small, and the features pinched in appearance. By

the application of a tape we found the circumference of the head $23\frac{1}{2}$ inches in every direction, shoulders $12\frac{1}{2}$ inches, hips 11 inches, and length of whole body $22\frac{7}{8}$ inches.

Gentlemen, this is an extraordinary case of preternatural labor, and is full of interest to the ordinary country physician. It is the only case that has come under my observation in a general practice of more than thirty years, and I must here admit that my first impression led me to the same conclusion that my young friend, Dr. Jenkins, had formed before my arrival. And it was only by mutual perseverance in our more thorough examination that the correct facts were reached and a full and correct diagnosis reached.

We are all inclined to look upon labor as a natural function and the resources of the organism are usually sufficient for its accomplishment. But this is evidently one of those peculiar cases, that interferes with the works of nature and renders the process difficult, dangerous, or even wholly impossible.

Some of our learned authors look upon the diagnosis of this peculiar pathological abnormality of uterine origin as an easy thing and not difficult or clouded in obscurity. But for the majority of country physicians, as we are, not injoying the advantages of a large hospital practice, such a diagnosis would present serious difficulties.

I did not see the patient any more, but I was fully advised by Dr. Jenkins, who informed me that the lady had no serious trouble after her delivery, and at this date enjoys good health.

OBJECTION TO SACCHARIN.—Dr. John Hedley states that a glycosuric patient for whom he had ordered the use of saccharin in lieu of sugar after five days use of it was obliged to discontinue it on account of an “abominably sweet taste” always in his mouth so that even his pipe had to be given up on account of the sweet taste of the smoke. Dr. Hedley thinks the explanation is to be found in the fact that the saccharin passes unchanged through the system, and he fears that it will thus produce a sweet saliva causing with others the same sickish sweet taste as with his patient unless occasional intermissions are made in the use.—*British Medical Journal* Feb. 11, 1888.

EDITORIAL.

THE A. M. A.

The next meeting of the American Medical Association is one of very great interest and importance with regard to the work of the association and its relations to the profession throughout the country.

For some years past there has been an unfortunate state of feeling between large numbers of the leading physicians in the eastern cities, and in the west, arising out of the mistakes which were made in connection with the organization of the International Medical Congress.

It is not worth while to go into the details of that trouble at this day. Mistakes and blunders were made on both sides, which rendered the Congress less of a success and less of a credit to our country than it would have been otherwise, and which for two years have impaired the interest and usefulness of our own American Medical Association.

The Congress has become one of the things of the past. Our American Medical Association still is. It little becomes men of culture and ability, to harbor ill feeling and bitterness on account of old mistakes, and refuse to unite in a work for the advancement of the whole profession. Let us all from the West and the East, the North and the South, come together in Cincinnati, a central and readily accessible point, and bury all the old ranklings and heart-burnings and jealousies, in an earnest endeavor to infuse new energy and vitality into the national association.

Within the last few years several associations of specialists have sprung into existence, and each of these is doing good work in its

own special field. We wish them all success. In the last two years a movement has taken shape, for the organization of these special associations into a general congress, to hold biennial or triennial sessions. This too is good, and promises useful work. But neither the separate special associations nor the special associations united in a congress do or can do for the profession as a whole, that which the A. M. A., can do and will do if the members of the profession will unite in judicious endeavors to promote the common good.

Let us put forth every effort to make the Cincinnati meeting a grand success. Let us turn from the past and press forward to a glorious future, joining hands in the determination to make our national association as potent for good in this country, as is the British Association in Great Britain.

We may have some suggestions to make later, with reference to policy to be adopted for the advancement of the interests of the Association and so of the profession.

RESECTIONS OF THE PHARYNX AND ESOPHAGUS.

At this time when the attention of the whole world is drawn to the condition of the Crown Prince, of the German Empire, all reports as to the results of resection of the larynx are of special interest.

A similar interest will attach to the report by Dr. Axel Iversen (*Nordiskt Medicinskt Arkiv*) of the result of operations made by him for the resection of the pharynx and esophagus.

He refers to a monograph on subhyoid pharyngotomy, in *Langenbeck's Archives*, (Vol. XXXI., liv. 3) where he recorded six cases in which he had made this as a preliminary operation: in three for a partial resection of the pharynx and in one to operate on a cicatricial stricture of the esophagus $1\frac{1}{2}$ centimetres below the cricoid cartilage. In the other two cases he practised by this same method

the resection of the pharynx and esophagus, and extirpation of the larynx, to remove annular cancerous ulcerations of the pharynx. He gives here the further course of the last case: the woman lived 15 months after the operation, a slight local recurrence taking place during the latter months. She died of empyema of the right side, provoked by a perforation of the esophagus four centimetres below the arch of the aorta. At the autopsy the esophagus was found to be as thin as paper, and the sound of which he made use to introduce aliment, had perforated the wall and poured its contents into the right pleura.

M. Iversen has continued his operations according to this method, and here presents four new cases, which he has since then operated on. All four were cases of cancer of the pharynx, the operation being performed as follows: The pharynx is opened by sub-hyoidean pharyngectomy; when the disease has assumed the annular form, he is of opinion that if the operation is a radical one, a separation of the pharynx is impossible, without injuring at the same time the inferior laryngeal nerves. We know that lesion of these nerves always causes an inspiratory dyspnea, which necessitates wearing a cannula. In these conditions the preservation of the larynx being of no importance, he removes that, if he makes a radical extirpation of the neoplasm. The larynx being freed from its muscles, and the neoplasms of the pharynx being circumscribed by means of a transverse incision through the whole wall to the prevertebral tissue, the pharynx and larynx are then detached *in toto*, as a common tube separated from its surroundings. The deep tracheotomy which has preceded, generally renders this extirpation very easy. Immediately after the incision an iodoformed filet is sewed to the upper extremity of the trachea: then one can cut into the esophagus, after which by means of threads passed into the esophagus this organ can be controlled. The author has often extirpated parts of the thyroid gland infiltrated with neoplasm, he has also several times after the extirpation dissected and cleaned out the two primitive carotid arteries, the neoplasm having in one case

extended to the vessel. In another case the peripharyngeal and peri-esophageal tissue was transformed into a thick connective tissue which exactly followed the course of the vessels: here the macroscopic diagnosis was moreover correct.

After the operation, which generally lasted a little more than an hour, the wound is left open, sprinkled with iodoform and tamponed with iodoformized gauze. To nourish the patient there is introduced into the stomach a tube of caoutchouc which is fixed to the skin. After eight or ten weeks the wound cicatrizes by granulations, and the fundus of the oval cavity is also closed at the posterior part.

M. Iversen extends the incision from the median line to the distance of about $1\frac{1}{2}$ centimetre from the tracheotomy wound, and thus obtains two cutaneous openings at a certain distance apart, the upper leading to the granulated canal which opens into the upper part of the esophagus, the lower one bearing the cannula of the trachea. At the end of ten to fifteen days the rubber tube is removed, and then four times in twenty-four hours an ordinary esophageal sound is introduced through which nutrition is effected.

Case No 1, lived 13 months, and died of an accidental complication: the autopsy showed no malign tumor. The neoplasm was microscopically positively an epithelioma.

Case No. 2, lived 15 months and died of empyema as related above, with a little local recurrence. Here again at the autopsy there were no metastases determined: the neoplasm here also was microscopically an epithelioma.

Case. No. 3, 49 years old, woman, was operated on at the communal hospital Jan. 3, 1886. There was an annular cancer of the pharynx. The line of resection in the pharynx corresponded nearly to the circumvallate papillæ of the tongue, the line of resection of the esophagus to a few centimetres below the incision of the trachea made between the first and second tracheal rings. The neoplasm extended to the left, around the pharynx to the primitive carotid which was completely cleared by a dissection. The left

lobe of the thyroid was also removed. The operation lasted a little more than an hour. The patient, who was already weakened by the want of nourishment before the operation, was unable to bear the introduction of food, and fell more and more into a state of inanition, and died 37 days after the operation. At the autopsy were found traces of an old (cicatrized) ulcer of the stomach: the concomitant catarrh of the stomach had been the cause of persistent vomiting. There was neither local nor general metastasis.

Case No. 4, a woman of 27 years was operated upon at the communal hospital, April, 26, 1886, for an annular cancer of the pharynx. The line of resection of the pharynx was some centimetres above the arytenoid cartilage: the line of resection of the esophagus was about three centimetres below the tracheal incision (first tracheal ring). She went quite suddenly thirty hours after the operation into a state of collapse and died. Although there was no autopsy, the author is of opinion that death was due to fatty degeneration of the heart due to a sclerosis of the coronary arteries, which he has observed several times in cancer patients.

Case No. 5, a woman *æt.* 46, was operated on at the communal hospital, July 8, 1886 for an annular cancer of the pharynx and esophagus. The line of resection of the pharynx was several centimetres above the arytenoid cartilage: the line of resection of the esophagus at four centimetres below the incision of the trachea (first tracheal ring) but was prolonged across the tumor which extended as much above as below in the esophageal tissue. She died six days after the operation presenting specially some signs of iodoform poisoning. The autopsy gave occasion also for conjectures as to septic causes with extensive parenchymatous alterations.

No. 6, a woman of 39 years, was operated on at the communal hospital Dec. 11, 1886 for an annular cancer of the pharynx. The line of resection of the pharynx was at the base of the tonsils; the line of resection of the esophagus about 5 centimetres below the incision of the trachea (first tracheal ring). When the esopha-

gus resumed its place, the incision was at the height of the first dorsal vertebra. A part of the left lobe of the thyroid gland was also extirpated. The course of the operation was perfectly normal: the eleventh day she was up; and when she was presented to the medical society, Jan. 1887, the wound was almost cicatrized. In the middle of the anterior aspect of the neck there were two fistulous openings, the one the entrance to the esophagus through a granulated canal, the other bearing the cannula. The weight of the patient was constantly increasing.

M. Iversen offers the following conclusions:

1. Of ten patients on whom he has practised pharyngotomy one only died of septicemia. (According to former statistics half of those operated on died.) He attributes this fortunate result chiefly to the actual mode of treating the wound, especially to the iodoform. The sound left in the esophagus also plays an important role. This is all the more interesting as despite the serious operation where the esophagus is drawn upward, the author has not had a case of mediastinal inflammation.

2. Judging from the autopsy of the first case, where, after thirteen months from the operation there was neither local nor metastatic recurrence, we might class this among cases radically cured.

3. The author believes that we may conclude from the autopsies that the neoplasm here as in the rectum remains long stationary, and so favors the operation. In fact, in four autopsies, there was found, as stated above, no metastasis.

4. The author thinks that extirpation of the larynx which has been practised here when that organ was not affected, is justified by the motives mentioned above:—preliminary tracheotomy in these cases being only a question of time, in this that the impinging of the neoplasm upon the larynx will sooner or later call for it.

5. In the cases which the author cites alimentation was well effected. The first patient gained ten pounds in a year. The autopsy of the other showed such an atrophy of the esophagus that his attention has been specially called to this point. He con-

siders it as possibly an atrophy from inaction the esophagus having been employed only as an inert tube where peristaltic movements have exercised no effect upon the relations of the muscles. To combat this in the future he first advises the patient to maintain the peristaltic reflex movements by tickling the palate (a physiological means which may here be questionable): second, he advises to introduce the tube only to the entrance to the esophagus and cause the food injected to descend by the peristaltic action of the canal.

By making the patient first masticate the food and then introducing it into the tube, a large quantity of saliva would be saved for the intermediary transformation of the material.

Further experience is necessary especially concerning relapses, to determine how much of justification there is for this operation which offers the patient the same fistulæ as are caused in similar cases (tracheotomy, esophagotomy, or gastrotomy) but only in the name of palliatives, and not, as in the author's cases, as adjuvants to attempts at radical cure.

ETIOLOGY OF PNEUMONIA.

The unusual prevalence of pneumonia in this part of the country during the past winter gives special interest to any studies upon its causation. The conviction that pneumonia is one of the germ diseases, that a specific microorganism is its essential causative factor, that it is not simply the result of exposure to cold, as was formerly taught, has for some time been held by a large number of the profession, while others were unwilling to accept the theory that pneumonia was in any strict sense of the word an infectious disease. Some few months ago Prof. Jaccoud read before the Academy of Sciences in Paris a paper which is of so much interest in this regard that we quote at length from the paper as translated in the *Physician and Surgeon* from *la Tribune Medicale*. He says:

"The paper that I have the honor to submit to the Academy is

regarding the causes of acute pneumonia, and one of the origins of the microbes that characterize it. It was some time since established that pneumonia is a germ disease, cultivatable and inoculable, and the following conclusions have been deduced from this discovery : (1) Exposure is not a sufficient cause for pneumonia; (2) pneumonia has a unique cause, namely, the accidental penetration into the organism of specific microbes coming from without. Therefore I have noted two cases, the study of which has enabled me to establish the real value of these propositions. The first observation was that of the case of a robust laborer, fifty-one years old, who slept well covered. During the night the window opened, and thence came a draught which caused an acute pneumonia. Twelve hours after, the presence of the specific microbes in the sputum was made out. The patient succumbed on the fourteenth day. By post-mortem, numerous encysted microbes were found in the lung tissue.

"The second observation is that of a domestic, twenty-two years of age, vigorous and healthy. She was imprudent enough to walk to the Luxemburg, with no other clothing than that which she wore in the kitchen. She took cold and returned with a chill; on the morrow pneumonia set in, accompanied by nephritis and endocarditis. The microbes were found in the sputum. The patient sank rapidly.

"What becomes, in the presence of these facts, of the two propositions formulated as a consequence of the microbic nature of pneumonia? The first proposition affirms that exposure is not a sufficient cause for pneumonia. Here are two robust persons of different age and sex, both in perfect health, in completely dissimilar conditions, who are both exposed for some time; this is followed in each case by immediate illness; the same day there is a chill, fever and stitch in the side, and after a lapse of from twenty-four to thirty-six hours, pneumonia manifested itself. I do not think it possible to conceive a closer affiliation of etiology. The influence of the cold is manifest; the connection of cause and effect is

almost of mathematical precision. The proposition is, then, not well founded, and exposure must be retained among the efficacious causes of pneumonia.

"As to the second proposition, the tendency of my observations is even more notable, in that it is less expected and clears up one of the fundamental questions of general pathology. This proposition holds that pneumonia has for a unique cause the penetration into the organism of a specific microbe, coming from without. This amounts to saying that this disease, so frequent and common, is always the result of an extrinsic infection. Let us see how the histories of our patients agree with this affirmation.

"It is certain that the microbes were found in the sputum of both during the course of the disease; it is no less certain that by post-mortem the same elements were found in the lungs, consequently, in spite of their cause, so sudden and peculiar, the pneumoniæ were germ-pneumoniæ. Up to this point there is no difficulty.

"But how to conceive of the presence of these elements in two persons who were in perfect health up to the time of taking cold? If one is to hold to the proposition, it must be admitted that the microbes penetrated the organism at the precise time of taking cold; it must be admitted, too, that the microbes progressed and propagated with such quickness that the penetration was followed by immediate illness, which preceded but a few hours the manifestation of pneumonia. What sort of hypotheses are these? The last is clearly an impossibility. I cannot bring myself to accept them, and in the two cases cited, as in all others like them, I discard without hesitation the idea of the fortuitous penetration of microbes contemporaneously with the exposure. The absolute partisans of the constant extrinsic origin of germ-diseases have advanced as a supreme argument, that in the very case in which the penetration of the microbes seem most unlikely, it must be admitted under pain of concluding that the micro-organisms were spontaneously generated in the patient. Is this true? Are we really forced into the dilemma of believing in the spontaneous gen-

eration of the microbes, or in their penetration from without, at the time of the morbid impression? Not in the least. The argument does not lead to this apparent dilemma, since it admits of a third and no less considerable term, that is, the previous existence of the microbes in the organism.

The human organism is swarming with microbes of different sorts. While the functions are normal they are in a hostile medium which prevents their injurious effects; but a perturbation, which alters the physiological functions, comes, and the organism is surrendered, without sufficient resistance, to its own microbes, the presence of which is before tolerated without being impressed. Such is the mode of infection that I designated many years ago as *auto-infection* or *infection intrinseque*.

Then, observation has established the presence of the microbe of pneumonia in normal saliva; on the other hand, the rapid advance of the pneumonia in my two cases does not permit me to admit the penetration of the microbe contemporaneously with the exposure; consequently, I am justified in concluding that my two cases arose from *infection intrinseque*. The *pneumocoques* did not come from without, they did not enter the organism at the time it was exposed to the cold; they existed previously in both persons, and as long as their health remained perfect, they remained safe. But the perturbation resulting from the exposure permitted their diffusion and growth. In consequence of this the primal generation of the pneumonia was the disorder produced in the lung by the influence of the exposure. And, indeed, by reason of the circulatory and cellular modifications, this may produce it—may be likened to a traumatism.

“This new doctrine of autochthonic infection by previous disturbance of the organism seems to me to have great importance; it widens greatly the domain of microbe pathogeny, and maintains in the first rank the causal power of individual predispositions as opposed to the parasitic etiology. These deductions, issuing from a rigorous analysis of my observations, have another general trend;

they prove that the classic etiology is enriched, not antagonized, by the germ-theory; they prove that these ideas do not overturn old truths, and they show that progress ought to be sought through the conciliation of traditional medicine and the discoveries of microbiology."

CHRONIC ENDARTERITIS AS A CAUSE OF SUDDEN DEATH.

A. Key-Abey has made an exhaustive study of the subject of chronic endarteritis as a cause of sudden death. The results of these studies have been published in different issues of the *Nordiskt Medicinskt Arkiv*.

Studying the subject from the standpoint of the statistician materials are derived from 852 autopsies made at the Medico-Legal Institute, of Vienna, during the period from June 1, 1881 to June 1, 1886, of persons suddenly deceased at an age above fourteen years.

He concludes from these observations that :

1. In 75.4 per cent of all natural sudden deaths, by which he means sudden deaths not resulting from poisoning or violence, above the age of fourteen, death has been produced by *endarteritis chronica deformans* in one of its sequelæ.

2. Among the sudden deaths aforementioned these sequelæ are very rarely any other than one of the following affections: paralysis of the heart, rupture of the heart, rupture of an aneurism of the aorta or one of its branches outside of the cranium, rupture of the aorta (including dissecting aneurism), and intra-cranial hemorrhage.

3. Of the lethal causes mentioned, paralysis of the heart presented itself in 71.1 per cent of the cases, rupture of the heart in 2.4 per cent, rupture of an aneurism of the aorta, etc., in 8.7 pe

cent, rupture of the aorta in 2.5 per cent, intracranial hemorrhage in 15.3 per cent.

4. The cases of sudden death after fourteen years of age (*vid. l. supra*) furnish in these lethal causes the following proportion: paralysis of the heart 52.9 per cent, rupture of the heart 1.7 per cent, rupture of aortic aneurism etc., 6.4 per cent, rupture of the aorta 1.9 per cent, intracranial hemorrhage 11.3 per cent.

5. In the cases of sudden death induced by chronic endarteritis, the masculine sex has furnished decidedly the larger contingent, though this is not so marked in all cases as in deaths from paralysis of the heart or from rupture of aneurism of the aorta. In the first of these the masculine sex furnished 64.5 per cent, and in the second about 76 per cent.

6. In these cases the endarteritis cannot be regarded as due to senility as the majority of the lethal cases in both categories of affections occurred at between 40 and 45 years.

7. In general men die younger than women from paralysis of the heart and probably also from aneurism of the aorta, from which it may be legitimately concluded that chronic endarteritis develops as a rule more rapidly and is more disastrous with men than with women.

8. The other sequelæ of chronic endarteritis mentioned above show slight difference between the sexes.

9. Social position and profession as such seem not to have an appreciable importance upon the etiology in these cases.

10. Sudden deaths from paralysis of the heart are usually more numerous in the last three and first three months of the year than in the other six, and of the seasons it is ordinarily the winter which furnishes the largest number of deaths of this kind.

11. In general also deaths due to chronic endarteritis have their principal frequency in the winter; then comes the autumn and then with nearly equal frequency the spring and summer.

The author admits that some of his conclusions may depend upon local influences peculiar to Vienna.

HEATING AND VENTILATION OF PASSENGER
COACHES.

Among the most important, interesting and valuable investigations with regard to points in sanitation and public health that we have seen of late are the studies made by R. Harvey Reed, M. D., of Mansfield, O., with regard to the sanitary condition of Railway-Passenger coaches, and embodied in a paper read before the Section of Public and International Hygiene of the Ninth International Medical Congress. In these investigations, Dr. Reed was assisted by Prof. C. C. Howard, of Columbus, O., and Dr. J. Harry Craig, of Mansfield, O.

These studies embrace the subjects of heating and ventilation of passenger coaches, lighting, and several other matters of more or less importance.

We desire now to call attention to some of Dr. Reed's observations with reference to heating and ventilation, as set forth in a paper published in a recent number of the *Railway Age*, for an advanced proof of which we are indebted to the courtesy of Dr. Reed.

Observations were made on four leading railroads, under various circumstances on first-class trains while in active service. The following are some of the results of the observations as to the temperature in thirty cars, smokers, ladies' coaches and sleepers. The difference of temperature between inside and outside of coaches while running was maximum 80° , minimum 37° , average 54° .

Difference observed between the extremes of temperature in coaches while running in winter, max. 27° , min. 0 , average $7\frac{2}{3}^{\circ}$.

Differences observed while standing were max. 27° , min. 1° , average 7° .

Differences observed between extremes of temperature in coaches running and standing during the winter season was max. 29° , min. 5° , average $13\frac{2}{3}^{\circ}$.

Comparing the temperature at the bottom of the cars with that

at the level of the head the differences were found to be as follows: max. 30°, min. 12°, average 18°.

They found that 6 $\frac{2}{3}$ per cent of the coaches examined were heated by stoves, 36 $\frac{2}{3}$ per cent by hot air, and 56 $\frac{2}{3}$ per cent by hot water in the form of the Baker heater.

In all these cases there was found an unwholesome lack of uniformity and reliability in the heating at different parts of the car and under the necessarily constantly varying conditions. Probably the most serious difficulty is that involved in the constant excess of temperature at the level of the head over that at the floor of the car which varied from 12° with the mercury outside at 18° F. in one instance and 12° F. in another to 30° with the mercury outside at 12° F.

The hot water heaters were found to be dangerous, exploding with great violence when out of order, and wholly inadequate in severe cold weather.

One fact especially noticeable is that the maximum difference in temperature between the floor and the level of the head was found in a sleeper, "which is supposed to be the best and most comfortably equipped car we have, and for the privilege of riding in which the public has to pay an extra fee; yet in this traveling palace the minimum difference between these two extremes of temperature was 12°, and the average difference estimated from twenty-four cars in ordinary winter weather was as high as 18°. Nor were these great variations of temperature all; in the same report above referred to there was not only a great variety of temperature in the same car, but a polluted atmosphere.

For example, Prof. Howard found in his analysis of the air in car No. 319 (Pan Handle R. R.), which was a sleeper, and contained only twelve passengers, that the atmosphere in this car contained as high as 13.25 parts of carbon dioxide per 10,000—the highest in proportion to the number of passengers of any car examined—and at the same time there was a difference between the temperature at the bottom of the car and level of the head of 29°

and yet this car had all the ordinary provisions for ventilating found in the majority of such cars.

Car No. 356 (C. C. C. & I. R. R.), was a ladies' car, heated with a Baker's heater: one transom and eleven drop ventilators were open, and three analyses of the air were made; one at the front end, when twenty-nine passengers were in it, which showed 14.26 parts of carbon dioxide per 10,000; another at the middle of the car when twenty-nine passengers were aboard, which showed 13.68 carbon dioxide present; and finally one at the rear end when there were twenty-seven passengers in it, which showed 11.53 parts per 10,000 of carbon dioxide present.

At the same time this car showed a difference of temperature between the level of the head and surface of the floor of 14° , with a variation of 6° between the extremes running and standing, with the mercury outside at 15° above zero.

These examples, which were practically duplicated over and over again in our investigations, certainly demonstrate without a question, a decidedly improper system of heating and ventilating, and remove all questions as to why so many people take colds and contract severe acute diseases while traveling in our modern passenger coaches."

As shown by the illustrations just quoted the ventilation was found to be as unsatisfactory as the heating in these cars. It was found that all the provisions for ventilation in these cars were at the top of the cars, or at the ends by windows or doors, except the constant currents of air that found their way in around the windows and descended toward the floor in all running trains.

"When the ventilators at the top of the car were open the warm air at the top of the car rapidly escaped at the openings, and was replaced by a current of cold air, which rushed in at these same openings and rapidly fell to the bottom of the car, where it remained until sufficiently heated, to again rise to the top and escape.

This process caused a constant out and in flow of air at these

openings, which was modified by the pressure of air inside the car, the motion of the train, and the currents of air outside.

The carbonic acid thrown off by the passengers being much heavier than the air would rapidly increase, and lay as a stratum of foul, cold air at the bottom of the car, while the warm, pure air would just as rapidly ascend to the top of the car and find a ready means of escape at the open ventilators.

In this way you will observe that it is easy to account for the extremely foul air in the car above referred to, notwithstanding they were apparently well ventilated according to the methods now in use, which put one in mind of the old story of a man trying to lift himself over the fence by his boot straps."

We see no criticism to be made on Dr. Reed's statement of the ideal heating and ventilation of a car, which he makes as follows:

"The ideal heating of a passenger car is to keep all parts of the car at a given temperature (say 70° to 75° Fah.), at all times while in active use. The ideal ventilation of a car is to remove all the foul air as fast as it is exhaled, and immediately replace it with pure fresh air. Then to properly heat and ventilate a car is to so combine these two as to keep a regular temperature at all times in the car with a free supply of pure air, and at the same time to remove all the foul, cold air as fast as it accumulates at the bottom of the car."

The scheme for heating and ventilation which Dr. Reed suggests is essentially a plan for securing a forced supply of fresh air by means of an air pump connected with the locomotive in the same manner as is the pump for air brakes, the heat being supplied by the steam from the locomotive or by an independent heater sheathed with boiler iron attached underneath the middle of each car, with conduits extending the whole length of each car allowing the admission of cold or heated air as needed at each seat. The flues for removal of foul cold air opening by a register at the bottom of each end of the car and extending to the top and out of the car.

"By such a method, it will readily be seen that a constant supply of pure air, at any desired temperature coming into the sides of the car, would soon enable it to acquire an even temperature throughout, and by its pressure, would constantly drive the cold foul stratum of air at the bottom of the car, out through the foul-air ventilators, and thus not only heat, but ventilate the car perfectly and scientifically as well as practically, and at the same time avoid all unnecessary draughts from open windows, doors, or top ventilators, such as are now usually found in almost every coach you enter, whether first class, or the lowest grade of emigrant cars."

Besides thus securing warmth and ventilation in the winter such a plan as this would, as Dr. Reed suggests, furnish in summer time a ready and economical method of cooling and ventilating the coaches by means of this constant air pressure, and at the same time avoid the dirt and dust so annoying to travelers in warm weather.

We have no doubt that if the attention of railroad men is once fully directed to this subject some efficient means of remedying the difficulties involved in the problems will be discovered.

INDEX MEDICUS.

We regret to learn from the publisher that this most valuable periodical, the publication of which is a credit not only to the publisher and editors, but to our whole country, is even yet a very considerable burden upon the publisher, who certainly cannot be expected much longer to continue its publication unless the subscription list can be sufficiently increased to make it self-sustaining.

From a memorandum published in the January issue of the *Therapeutic Gazette* we learn that there are less than 500 paying subscribers to this journal, and of this number there are only five copies taken in the state of Missouri and only eight copies in Illinois, not a very good showing as to the pains taken in either of

these states by the physicians to acquaint themselves with the current medical literature of the day. Mr. Geo. S. Davis, of Detroit, has done much for the profession in carrying on the *Index Medicus* so long at a positive loss. We trust that among our own readers there will be some who will be disposed to manifest their appreciation of this index of medical literature by forwarding the subscription price \$10.00 to the publisher. And certainly every medical library and every general library which makes any claim at all to supply medical literature should keep a file of the *Index Medicus*. The County and District Medical Societies of the state would do well for their members by making a subscription for it. Let us see what can be done in this way.

ST. LOUIS TRAINING SCHOOL FOR NURSES.

Some recent personal experience inclines the editor to call the attention of the readers of the *COURIER* to the admirable work that is being done here by the Training School for Nurses. He has had several opportunities of ascertaining in a most satisfactory manner, that the graduates of our St. Louis School are not only thoroughly instructed in all the details of the technique of nursing, which are essential to a "trained nurse," but that they have imbibed from their most efficient and excellent superintendent, Miss. Warr, and from the presiding officer of the institution, Mrs. W. H. Palsifer, a spirit of enthusiasm for their profession and of devotion to their work which ensures the very best of success.

The skilled and faithful nurse has before her unlimited opportunities for usefulness. That profession is one of the few fields of labor which is not crowded, and the graduates of the Training School are almost constantly occupied, while workers in other departments are waiting for employment.

Physicians who have had the satisfaction of being aided by a thoroughly competent nurse in the care of patients seriously ill

or having undergone severe surgical operations realize the advantage to the patient and the comfort to themselves of having such assistance.

The Training School is doing good work for the profession in giving to those who have the natural and acquired gifts that are essential for success in this work the technical training which is equally necessary.

The members of our profession can do a service to the Training School and so to the profession as well, by calling attention of young women who in their opinion are well adapted to this form of useful employment, to the opportunities afforded at the school.

Applications should be made in writing, addressed to the Nurse's Home, 1510 Lafayette Ave. St. Louis, when full particulars will be forwarded. We would call attention to the fact that an allowance is made the nurses which covers all their expenses during their two years in the training school, so that their course of training does not involve any outlay on their part.

BROOKLYN has six different medical societies, viz., The Medical Society of the County of Kings, the Brooklyn Pathological Society, the Medical Microscopical Society of the City of Brooklyn, The Brooklyn Surgical Society, The King's County Pharmaceutical Society, and the Brooklyn Dental Society.

LECTURES ON INEBRIETY.—The president of the English Society for the Study of Inebriety, Dr. Norman Kerr, gave the first course of medical lectures on the disease inebriety and its treatment, in the hall of the London Medical Society, beginning Jan. 12, 1888. Dr. T. D. Crothers, of Hartford, Conn., was invited to deliver two lectures on the same topic, before the Albany Medical College, Jan. 24 and 25, 1888. These are the first medical lectures on inebriety, and the first efforts to present this subject in connected detail, by medical men, from a purely scientific standpoint.—*Journal of Inebriety*, Jan. 1888.

BOOK REVIEWS AND NOTICES.

A MANUAL OF THE PHYSICAL DIAGNOSIS OF THORACIC DISEASES. By E. DARWIN HUDSON, Jr., A. M., M. D. Wm. Wood & Co., 8vo., pp. 162, cloth, \$1.50. (St. Louis, J. H. Chambers & Co.)

This is the posthumous work of a man already widely known from his writings on kindred subjects. As the art of physical diagnosis has made few advances within the last few years such a work must be more a compilation than an original work. The author has succeeded in maintaining a happy medium between the great diffuseness and the great conciseness of other well known writers, and presents the subject matter in a clear and comprehensive manner. As a student of Dr. Jos. R. Leaming, we naturally find an exposition of some of the peculiar views held by that distinguished teacher. Although the transposition of the crepitant rale from the bronchi to the pleura has not yet been widely accepted, still it can not be denied that many of the so-called bronchial subcrepitants are intra-pleural in character.

We think the author lays too much stress on the use of the bimanual stethoscope in examining the lungs. The advantages of a trained unaided ear are sufficiently obvious.

We can heartily commend this volume to those who desire to study the physical diagnosis of the chest. They will find it a first-class scaffolding on which to build a wide and more comprehensive knowledge of thoracic diseases. G.

HEALTH LESSONS. A Primary Book. By JEROME WALKER, M. D. New York, D. Appleton & Co., 1887, 12mo., pp. 194; cloth. (St. Louis, J. H. Chambers & Co.)

This little volume is intended for use in primary schools and is written in simple language, adapted to the comprehension of little ones. In the main the book seems to us to be well adapted for the purpose, the instruction is good, the illustrations add much to the interest of the children. We cannot refrain from calling attention to one in particular which ingeniously represents the brain as a

superintendent sitting in his office, connected by telephone and telegraph wires with workers of different kinds in different parts of the house, corresponding to the location and function of the different organs.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION at the Eleventh Annual Meeting, Official Report. Boston, 1887, 8vo., pp. 49, paper.

This pamphlet contains in excellent style simply the official record of the discussions at the meeting with abstracts of the papers which the authors were permitted to publish in full in various medical journals at their option. The secretary has prepared an admirable report. One feature of interest is the list of papers on dermatological subjects, published by the members of the association, which is given at the close of the volume.

THE MEDICAL WORLD VISITING LIST AND LEDGER OF MONTHLY BALANCES. Medical World, 1520 Chestnut Street, Philadelphia, Pa.

The ingenious and practical method of keeping a physician's accounts which these little books offer, is concise and has many advantages. In the first place, the use of removable tablets containing the business of each month by itself, has an evident advantage over the more bulky visiting lists in common use. Then the entering of the daily items of accounts in words instead of signs renders them legal at once, without transferring, while signs are not recognized by the courts.

The ledger of monthly balances is intended to accompany this visiting list, and contains spaces for entering the amounts due from over 600 patients.

The system of account keeping provided for by these little books involves very little trouble, and the books are portable and convenient. They certainly do all that is claimed for them, viz., they show at any time just the standing of each account. An objection in the opinion of some will be that while the ledger of balances shows the present status of each account when posted, neither book shows at any one place the whole of an individual account for the year.

The publisher is so confident of the success and satisfaction of this mode of account keeping that he offers to refund the price of the two books (\$2.00) on their return after three months' use.

TEXT-BOOK OF THERAPEUTICS AND MATERIA MEDICA. Intended for the use of Students and Practitioners. By ROBERT T. EDES, A. B., M. D., etc. Philadelphia, Lea Brothers & Co., 1887. 8vo., pp. 552, cloth, \$3.50; sheep, \$4.00. (St. Louis, J. L. Boland; J. H. Chambers & Co.)

The author of this volume had already introduced himself to the profession as a writer on therapeutics by means of his book the "Therapeutic Handbook of the United States Pharmacopeia." In literary style the author is concise, clear and accurate.

In his introduction the author lays down a platform, to adopt a political phrase, which commends itself to the favor of any thoughtful reader. He claims that "an attempt is usually made to teach the medical student too much of materia medica," and that in spite of recent additions to the materia medica, some of which are of considerable value, "it is still true that therapeutics progresses slowly and laboriously, and with the aid of physiology and pathology, as well as chemistry and pharmacy."

The drugs are classified according to their action, and when a drug falls in several classes it is fully described in that which to the author seems most characteristic, and under the other classes reference is made to the more prominent one.

A therapeutic index will be an aid to the practical use of the volume. In our opinion the author has been rather too condensed and concise to reach the greatest usefulness to the practitioner.

CHEMICAL ANALYSIS OF HEALTHY AND DISEASED URINE, QUALITATIVE AND QUANTITATIVE. By T. C. VAN NUYS, Professor of Chemistry, Indiana University. Philadelphia, P. Blakiston, Son & Co., 1888. 8vo., pp. 187, cloth, \$2.00. (St. Louis, S. W. Simpson & Co., J. H. Chambers & Co.)

At a time when so many indifferent works on urinary analysis are appearing, it is decidedly refreshing to meet a volume like the present, that treats the subject in a thoroughly scientific manner, and with such succinctness and precision of language, as to make it intelligible to "all persons into whose hands it may fall." It is divided into twelve chapters, neatly and logically arranged. The first five are devoted to a masterly exposition of the physical and chemical properties of the chemical constituents of the urine, chapter VI to processes of examination of urine and sediments (qualitative). The micro-chemistry of this chapter is exceptionally good. The portion given to the consideration of the chemical processes is, however, a disappointment, not from what it contains, for all

the standard text methods are carefully described, but from that which is omitted. The recent delicate tests for albumen that have increased the importance of the proteid compounds, represented by mucin and peptones, such as "Tanret's solution," potassio mercuric iodide, picric acid, etc., the indigo carmine test for sugar, advocated by Dr. Oliver, and the bedside urine test papers and tablets, that have proved themselves a boon to busy practitioners, both in city and country, are ignored. Chapter VII, concretions and stones, and the remaining chapters, including an appendix with four valuable tables, are devoted to quantitative analysis, the apparatus employed and the normal solutions required. This part of the book is very valuable, especially as the methods introduced are only the most exact and recent. Nitrogen is given the attention its importance deserves, and Kjeldahl's splendid method for its estimation is fully described. The volume is printed in clear large type, illustrated with thirty-nine fair wood engravings, well indexed and neatly bound. We cannot say too much in praise of this book, and cordially recommend it to students and practitioners.

A. N. RAVOLD.

THE RECTUM AND ANUS; Their Diseases and Treatment. By CHARLES B. BALL, M. Ch., F. R. C. S., etc. Philadelphia, Lea Brothers & Co., 16mo., pp. 410, cloth. (St. Louis, J. L. Boland; J. H. Chambers & Co.)

This book is one of a series of handy manuals by British authors which are published synchronously in Great Britain and this country, and is one of the best of the series.

This volume is an additional evidence of the fact which we have already remarked, that the diseases of the rectum and anus are beginning to attract much more attention than they did formerly.

Mr. Ball gives the results of an extensive personal experience as well as a familiar acquaintance with the writings of others. His description of the methods of making an examination is excellent.

The illustrations are numerous, well executed and well adapted to elucidate the text.

CYCLOPEDIA OF OBSTETRICS AND GYNECOLOGY. (12 vols., price \$16.50.)

Volume V., containing: Gynecological Diagnosis; General Gynecological Therapeutics, by Prof. R. CHROBAK, of Vienna; and Electricity in Gynecology and Obstetrics, by EGBERT H. GRANDIN, M. D. One hundred and sixty-five wood-engravings. New York, Wm. Wood & Co., 8vo., pp. 390; cloth.

In looking through this volume our attention was specially at-

tracted by the number and importance of the notes by the editor in the part devoted to diagnosis. In the chapter devoted to anesthesia we think that cocaine certainly merits a more extended mention than Dr. Chrobak gives it.

The following from an eminent specialist is certainly generous and noteworthy: (p. 164.) "In a previous chapter we have stated that many manipulations must of necessity be performed by the specialist, and the large proportion of diagnoses must be made by him, but the treatment of many affections must in the interest of the laity and of the profession lie with the general practitioner and not with the specialist."

The subject of electricity in gynecology is ably treated by Dr. Grandin, the editor of the cyclopedia.

CYCLOPEDIA OF OBSTETRICS AND GYNECOLOGY. (12 vols., price \$16.50.)

Volume VIII, Diseases of the Ovaries, by Prof. A. Olshausen, of Halle. Thirty-six fine wood engravings. New York, Wm. Wood & Co. 8 vo., pp. 414, cloth.

This volume is a complete presentation of the various diseases of the ovaries, a large share of the space being devoted to a consideration of ovarian cysts and the surgical treatment of the same. It is a thorough and exhaustive discussion of the subject by one among those best qualified by study and opportunity to teach judiciously. It is a valuable volume of the cyclopedia.

CYCLOPEDIA OF OBSTETRICS AND GYNECOLOGY. (12 vols., price \$16.50.)

Volume XI., containing Sterility; Developmental Anomalies of the Uterus, by Prof. P. MUELLER, M. D., of Berne; and the Menopause, by Prof. E. BORNER, of Graz. With fifty-nine fine wood engravings. New York, Wm. Wood & Co. 8vo.; pp. 383; cloth.

The subjects discussed in this volume are continually coming up in the experience of every general practitioner, and are here very satisfactorily discussed. We observe that as regards sterility the author throws a due share of responsibility for unfruitful unions upon the male.

As the cyclopedia is intended for general use by the profession, we think this will be among the most valuable and most frequently consulted of any of the series.

CYCLOPEDIA OF OBSTETRICS AND GYNECOLOGY. 12 vols., price, \$16.50.

Volume XII, containing Diseases of the Tubes, Ligaments, Pelvic Peritoneum and Pelvic Cellular Tissue; Extra-Uterine Pregnancy, by

Prof. L. BANDL, M. D., of Prague; and Diseases of the External Female Genitals; Lacerations of the Perineum, by P. ZWEIFEL, M. D., of Erlangen. With one hundred chromo-lithograph and eighty-eight fine wood engravings. New York, Wm. Wood & Co., 8vo., pp. 366; cloth.

This volume completes the series of twelve forming the "Cyclopedia of Obstetrics and Gynecology," and is fully up to the standard of those which preceded. Taken as a whole, the work has been carried out admirably; and Dr. Grandin has our sincere congratulations upon being identified with a work which has proved to be such a success, and which owes to him so much of improvement and adaptation to the uses of American practitioners by the able editorial notes from his pen. The publishers, too, are to be complimented upon the promptness with which the work was issued, the whole series having been placed in the hands of subscribers during the year in which it was promised, and upon the excellent style in which the volumes have been brought out.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Rectal and Anal Surgery, by Edmund Andrews, M. D., and E. Wyllis Andrews, M. D., Chicago: E. T. Keener, 1887. 8vo., pp. 111, cloth.—Health Lessons, by Jerome Walker, M. D., New York, D. Appleton & Co., 1887, 12mo., pp. 194, cloth. (St. Louis, J. L. Boland.)—Photographic Illustrations of Skin Diseases, an atlas and text-book combined, by George Henry Fox, A. M., M. D., Hand colored plates, ninety illustrations from Life. Part I. Seborrhea, Erythema Multiforma, Erythema Bullosum, Varicella, Variola. Part II. Urticaria, Urticaria Pigmentosa, Dermatitis Venenata, Dermatitis Calorica, Eczema Erythematosum. New York, E. B. Treat, 4to, pages, 24-40, paper, \$2 a part.—The Rectum and Anus, their Diseases and Treatment, by Charles B. Ball, M. Ch., F.R.S.I., etc. Philadelphia, Lea Bros., 16mo., pp. 410, cloth.—Chemical Analysis of Healthy and Diseased Urine, Qualitative and Quantitative, with thirty-nine illustrations. By T. C. Van Nuys, M. D., Philadelphia, Blakiston, 1888, 8vo., pp. 187, cloth, \$2.00. (St. Louis, Simpson & Co.)

PAMPHLETS AND REPRINTS.—Conservative Gynecology, by George F. Hulbert, M. D. (Weekly Med. Rev.)—Transactions of the American Dermatological Association at the eleventh annual meeting, held in Baltimore.—An Address from a Special Committee of the College of Physicians of Philadelphia to the Medical Societies of the United

States. II. Report of the Committee of the College of Physicians of Philadelphia.—Cooper Medical College, San Francisco, Annual Announcement, Session of 1888.—Dystocia from Short or Coiled Funis, and its Treatment, by A. F. A. King, M. D. (Jour. Am. Med. Ass'n.—Annual Report of Morse Dispensary of Cooper Medical College for 1887, San Francisco.—Syphilis of the Endometrium, by T. A. Ashby, M. D., Baltimore, Md. (Maryland Med. Jour.)—Hypertrophy of the Tonsil of the Tongue, by J. W. Gleitsmann, M. D. (Med. Record, Dec. 17.)—Traumatic Hematoma of the Larynx, by J. W. Gleitsmann, M. D. (Med. Record, Oct. 27, 1887.)—The Galvano-cautery Sound in Hypertrophy of the Prostate, etc., by Robert Newman, M. D., 18mo., pp. 53, paper. (N. Eng. Med. Mo.)—Should Physicians be Pharmacists? By Chas. L. Mitchell, M. D. (Phil. Med. Times, Dec. 30, 1887.)—Bits of Knowledge Taken from Alden's Manifold Cyclopedia. New York, John Alden, publisher.

CLINICAL ATLAS OF VENEREAL AND SKIN DISEASES.—Lea Brothers & Co. announce the above work, prepared by Dr. R. W. Taylor, to contain 58 full page chromo lithographic plates, containing 191 figures from original and selected paintings. The work will consist of eight parts which will be sold only by subscription, at \$2.50 per part. The first two parts will be ready soon and the rest will follow at brief intervals.

NEW METHOD OF PURIFYING WATER.—The *Annals of Hygiene* publishes a report of some successful experiments in purifying water from organic germs by passing through it strong currents of electricity. These experiments have been carried on at Pittsburg, and if further investigation shall confirm the results already attained, this will be by no means the least important and valuable of the applications of electricity for sanitary and medical purposes.

Specimens of water that were found by the use of a powerful microscope to be full of all kinds of animal life, disease germs, etc., were charged with fairly strong currents of dynamic electricity, and then carefully covered to prevent any contamination from the air. After fourteen days it was examined again, and not a sign of living animalculæ or disease germs could be found, while samples of water kept in the same way without being charged with electricity, showed as full of organisms as when first examined.

REPORTS ON PROGRESS.

OBSTETRICS AND GYNECOLOGY.

Compound Elixir of Viburnum Opulus.—The following are from the draft for the National Formulary and it is supposed are intended to take the place of "Hayden's Viburnum Compound."

R _x	Ext. viburni opuli fl.,	-	-	-	3x.
	Ext. trillii erecti fl.,	-	-	-	3ijss.
	Ext. aletris farinosæ fl.,	-	-	-	3x.
	Elix. taraxaci co.,	-	-	-	3xi.

M. Allow to stand a few days and filter.

R _x	Ext. viburni prunifolii fl.,	-	-	-	3ij.
	Tr. cardamomi,	-	-	-	3i.
	Elix. aromatici,	-	-	-	3xiii.

M. Allow to stand a few days and filter.

—*Western Druggist*, Jan., '88

The Induction of Premature Labor in Amaurosis and Amblyopia in Connection with the Albuminuria of Pregnancy.—DR. THOS. R. POOLEY, in a paper read before the New York Academy of Medicine, Jan. 19, 1888, discusses the subject indicated above and draws the following conclusions:

1. That in all cases of pregnancy it is not only desirable to examine the urine from time to time for albumen, but also to examine the eyes with the ophthalmoscope, even in a routine manner, since, as Loring points out, and as is well known to oculists, "a large percentage of cases having lesions of the optic nerve and retina either have none or make no complaint of loss of vision, but which may lead, after a long interval, through the secondary or atrophic state to complete blindness;" the fact, too, that varying degrees of blindness do not usually appear until near the end of pregnancy does not show that the retinal lesion may not already have been in existence for some time, and that the timely examin-

ation of the eyes might not have saved sight and even life. Moreover it is known that the evidences of disease of the kidneys not infrequently shows themselves in the eye before they do in the urine.

2. In uremic amaurosis, without changes in the eye visible to the ophthalmoscope, even should the usual accompanying symptoms, such as dizziness, nausea and threatened convulsions be absent, their supervention is soon to be feared, and the induction of premature labor is indicated, without waiting until the life as well as the sight of the patient is in danger.

3. In neuro-retinitis, with grave organic lesion of the retina and optic nerve, sight impaired and the loss of vision progressing, especially in the last month of pregnancy and the child (if not dead from the effects of the kidney disease) may be viable, it is not only justifiable but urgently demanded that premature labor be resorted to. In some rare instances, where it is evident that to wait until this time would be to doom the patient to blindness, it should be done in the earlier months of pregnancy.

4. In those instances in which in one pregnancy failures of vision have occurred which have remained permanent, abortion in the following pregnancies in which symptoms of failure of vision again occur, may be rendered necessary. This conclusion is meant to cover cases like Loring's, whether it be finally ascertained that they are dependent upon kidney disease or not; the weight of the responsibility of the decision in these cases must lie with the oculist, however, since he alone, from both the objective and subjective symptoms, can conclude whether the gravity of the case would warrant the operation.

5. Women having once suffered loss or impairment of vision during pregnancy should have the danger of again becoming so, and the relation of cause and effect fully explained to both themselves and their husbands.—*Med. Rec.* Jan. 28, 1888.

[Dr. Pooley's paper is written from the stand-point of the pure specialist and is an illustration of the tendency of specialism to exaggerate the importance of the specialty. We think that most practitioners would hardly accord to the specialist in diseases of the eye, the right to determine for them absolutely whether they shall resort to so serious an expedient as the induction of an abortion.

Curetting for Hemorrhage due to Uterine Fibroids.—DR. HENRY C. COE, read before the Obstetrical Section of the Academy of Medicine, of New York, Nov. 23, 1887, a paper on the subject indicated above. He ends his paper with the following conclusions:

1. The hemorrhage in cases of fibroid tumor of the uterus has its source, not in the tumor itself, but in the hypertrophied endometrium.

2. The hemorrhage is not directly proportionate to the size of the tumor, but to the extent of the mucous surface. Venous obstruction and the menstrual congestion in the mucosa are the chief active causes.

3. In certain cases the hemorrhage can be diminished for a considerable period, by thoroughly scraping away the hypertrophied endometrium and repeating the operation as often as may be necessary to keep the menorrhagia under control.

4. Curetting is merely a palliative measure, but it may enable the patient to survive until she is relieved at the menopause, whereas radical operations too often result fatally.

5. Curetting in these cases should be regarded as an experiment, which, however, is so harmless and so frequently successful, that we are justified in giving it a fair trial before advising oophorectomy, myotomy or supravaginal amputation.

6. The use of the curette requires no special skill. It is an operation for the general practitioner and is much more rational than to allow the patient to become exhausted by repeated hemorrhages which medication and other palliative measures are powerless to control.—*Med. Record*, Jan. 28, 1888.

Alexander's Operation.—DR. J. H. KELLOGG read a paper before the annual meeting of the Michigan State Medical Society last year in which, as the result of considerable personal experience, he urges the performance of Alexander's operation as a means for the radical cure of retro-displacements or prolapses of the uterus. The use of pessaries he regards as simply a temporary palliative; and he cites the authority of Dr. Thomas for the unreliability of any of the old forms of operation.

Alexander's operation was presented to the profession some five years ago, and Dr. Kellogg thinks it remarkable that it has awakened so little interest and enthusiasm. He is disposed to attribute this (1) to want of confidence in the operation due to wrong con-

ceptions of the ligaments and their functions, and (2) to a misapprehension as to the difficulties and risks attending the operation.

In his paper he aims at the removal of both these obstacles so far as he can influence the profession. Quoting Gray's description of the round ligaments he calls attention to the mixed character of their structures, at once muscles and ligaments besides containing an abundant plexus of vessels. When drawn through the external abdominal ring the ligament has something of the appearance of a tendon or a ligament but lacking the glistening of these structures. In size the ligaments vary from two millimetres in thickness to five times that size. He has also found important variations in the form of the ligaments. Sometimes there is a gradual taper from the outer extremity toward the uterus. Sometimes the ligament continues for some distance a mere filament of tissue hardly distinguishable from the fascia and then suddenly swells out into a mass half as large as the little finger. There is also considerable variation in the development of the peritoneal covering of the ligament as well as in the insertion of the terminal filaments. He urges the importance of attention to all these points, inasmuch as the nature of this operation is such that if the first attempt to perform it is unsuccessful, the tissue changes produced are such as to make highly improbable the success of any subsequent effort.

Dr. Kellogg then discusses the strength and the function of the round ligaments. He shows that they are capable of sustaining a weight of several pounds; but holds that they are not expected to support for an indefinite time the weight of the uterus and the overlying tissues but by restoring the organ to its normal position to allow the forces which normally hold it in position to resume their action and thus restore the patient to as nearly a normal condition as possible.

As to the impression that this operation is difficult and dangerous, Dr. Kellogg asserts that it is erroneous in both particulars, that it is not difficult for one familiar with the anatomy of the parts and who does his work carefully and patiently. That the operation is not excessively dangerous is evidenced by the fact that out of two hundred cases reported only four were fatal, three deaths occurring from blood-poisoning and one from peritonitis. Recognizing the necessity for some dexterity and much patience in the performance of the operation, he advises that the patient be prepared the same as for a laparotomy or an operation for an irreduci-

ble hernia, with a thorough bath or shampoo, or, if possible, a Turkish bath the day before the operation. Before the operation the mons Veneris and the lower part of the abdomen must be thoroughly shaved and scrubbed with soap and water, and then sponged with corrosive sublimate solution (1 4000).

He gives the following directions for the performance of the operation.

"In beginning the operation, find first the spine of the pubes, and locate Poupart's ligament. Make an incision through the skin and superficial layer of fat, from the spine of the pubes, parallel with and just above Poupart's ligament. Even less than one inch is sufficient in very thin subjects. An incision more than one or one and one-half inches in length is seldom required. As one acquires skill in operating, the incision may be made shorter. Next cut through the fascia, and separate the areolar or adipose tissue beneath with the handle of the scalpel, exposing the tendon of the external oblique muscle. Now place the end of the finger in the wound, first pressing it upon the spine of the pubes, then allowing it to slide upwarc and outward. A few lines from the spine of the pubes the external abdominal ring will usually be felt. Sometimes, however, the ring is so small as to be almost imperceptible. I found it in one case scarcely an eighth of an inch in diameter. In other cases I have found it large enough to receive readily the end of the index finger. Now press the tissues outward so as to expose the ring. Sometimes a little mass of fat will at once be seen protruding from the ring. In other cases the transverse fibres connecting the columns of the ring are found so abundant as to confine everything within the canal except the spreading fibres of the cord and the glistening branches of the genito-crural nerve. Carefully divide the transverse fibres or intercolumnar fascia. A grayish mass, which includes the round ligament, rises between the columns of the ring. This should be seized with a pair of blunt forceps and raised sufficiently to allow an aneurism needle or blunt tenaculum to be passed beneath the entire mass. Now, raising the mass gently, examine it carefully to discover the ligament if possible. This can not always be done, but by carefully dividing first the nerve and then the structures which are attached to the borders of the ring, stretching the tissues taut, and dividing by very slight cuts the tissues which are most tense, the mass may be gradually drawn out from the ring. By patient and careful work, the liga-

ment may be drawn out sufficiently to bring into view the portion which presents the characteristic appearance previously mentioned, by which it may be readily distinguished from the fascia surrounding it. It may now be completely separated from the other tissues, and unless there is an unusual development of the peritoneal pouch forming the canal of Nuck, it can be readily drawn out its full length. This should not be done, however, at this stage of the proceedings. Trusting the ligament, which has now been isolated, to the hands of an assistant, or, better, catching its outer extremity in the grasp of a pair of catch forceps, cover the wound first with a sponge and then a napkin saturated with the corrosive sublimate solution; then proceed to isolate the ligament of the other side in the same manner. When this has been accomplished, the ligament secured with catch forceps, and the wound covered as before, the uterus should be placed in complete anteversion. This can sometimes be done by the finger alone, if the case is one of procidentia or retroversion, but it is usually better to employ a sound with a bulbous extremity made large as possible, so that the endometrium may not be injured. Having placed the uterus in anteversion the sound may be trusted to a careful assistant, who must keep it in precisely the position fixed. The use of the sound is imperative in cases of retroflexion, as traction on the ligaments, without first straightening the uterus, would only increase the flexion, although it might lift the whole uterus forward. In cases of this sort it is necessary to introduce an intra-uterine stem after the operation, to be worn for a few weeks.

After thoroughly cleansing the hands, proceed to withdraw the ligaments sufficiently far to enable them to control the uterus. The operator can usually determine this readily by the tension upon one ligament when the other is pulled upon; but for a more satisfactory demonstration of the exact effect produced by the ligaments, a finger should be placed upon the cervix, while the ligaments are alternately pulled and relaxed.

All that now remains to be done is to secure the ligaments in position, and close up the wound. If the external ring has been considerably enlarged, the pillars of the ring may be approximated by one or two ligatures of carbolyzed cat-gut. Ordinarily, however, this is not necessary. The proper degree of tension for each ligament having been determined upon, an assistant should hold both at the proper point, and the operator should pass a

double-threaded needle carrying a silver wire, through the skin, the pillars of the ring, and the deepest part of the ligament which can be reached. The needle should also be passed through the peritoneal coverings of the ligament, if these have been dragged forward with it. The needle should enter and emerge at about one half an inch distance from the edge of the wound. Two sutures of this sort are usually sufficient. The balance of the wound should be closed with skin sutures of either silk or cat-gut, each suture passing through the ligament so as to distribute the strain as widely possible. I have found a decided advantage in the use of a broad plate of vulcanized rubber which is placed upon the *mons veneris*, between the lower angles of the wound, over which the ligaments are secured by means of silver wires passed through each ligament close to the wound, the free ends of the wires being twisted together. By this means, the tension is removed from the wound. Since employing this device, I have secured union by first intention in nearly every case. In dressing the wound, I first sprinkle over and about the incision iodoform, or a mixture of one part of iodoform with two or three of subnitrate of bismuth. Over this I placed a piece of sterilized sheet lint, and covered all with a mass of sterilized absorbent cotton, made a little thicker over the wound, and a thick pad of sterilized cheese cloth, covered with oiled muslin. A thorough hot vaginal douche is administered, the uterus propped up with antiseptic cotton pledgets, or a proper pessary, and the patient put to bed.

In performing the operation, the operator may stand between the thighs or upon either side as preferred. I have not used the spray in any case, but take pains to keep the wound flooded with corrosive sublimate solution, one part to four thousand of boiled or distilled water.

The indications for the employment or non-employment of this operation are, I think, the following:

1. Procidencia of the second or third degree, which does not yield to other measures after a fair trial.
2. Retroversion, or retroflexion, which resists the usual means of treatment, on account of the impossibility of keeping the uterus in place by means of a pessary, or inability of the patient to wear a pessary by reason of tender or prolapsed ovaries.
3. Antelexion with retroversion, in which the uterus lies in the hollow of the sacrum, the ovaries being prolapsed.

4. An extreme degree of anteversion, which cannot be otherwise relieved. Since this paper was written, I have operated upon a case of this sort, in which the fundus of the uterus was under the pubes. I shortened the ligaments three inches, and thereby drew the uterus backward and upward two inches, where it remains.]

In cases otherwise seeming to require the operation, but in which the displaced womb or ovaries cannot be readily replaced by reason of adhesions from old inflammations, the operation should not be attempted, as it will pretty certainly fail of accomplishing the purpose designed."

Supplementary Ovaries.—DR. JOHN HOMANS, 2nd, believes that a large proportion of the cases in which menstruation has persisted after the removal of both ovaries, may be explained by the presence of supernumerary ovaries which exist in 4 to 6 per cent. of all cases.—*Bost. M. & S. J.* July 21.

Quadruplets.—S. L. LOWRY reports the case of a German woman in San Antonio, Texas, who gave birth to quadruplets, June 28. The mother was about 35 years old. The labor was premature at about six months. The fetuses were well formed and well nourished, of uniform size, about twelve inches in length and weighed two and one-half pounds each. They all showed some signs of life, and one breathed for some minutes and cried faintly. Each fetus was enclosed in separate membranes, with separate cord and placenta, though the placentæ had become attached at their edges.—*Daniel's Texas Med. Jour.* July '87.

SURGERY.

BY L. T. RIESMEYER, M. D.

Antiseptic Treatment of Boils and Carbuncles.—PROF. VERNEUIL, in a paper read before the Academy of Medicine, of Paris, 1888, advocates a carbolized spray for the treatment of carbuncles of all sizes and at every stage. For small or medium sized carbuncles, and for those which are already opened, he uses an atomizer, which is heated by alcohol; for the larger tumors, where the skin is not broken, a more powerful apparatus which gives off a

more abundant vapor and has a more considerable force of penetration, is used. The apparatus, filled with a two per cent solution of carbolic acid in water, is placed from one to two feet from the skin, regulating the spray according to the sensation of the patient. Three or four sittings, of half an hour each, every day, are sufficient. Between the time of spraying an antiseptic carbolic dressing should be applied to the lesion. Carefully protect the normal parts surrounding the carbuncle with compresses or pieces of adhesive plaster, perforated at the center. Verneuil claims that this treatment, with very few exceptions, leads to a rapid recovery from the manifestations of furuncles and small carbuncles, and checks the disease in graver cases; it rapidly puts an end to the pain, the fever and the general symptoms, and prevents auto inoculations and the phenomena of general infection.

Laparotomy for Septic Peritonitis.—DR. HENRY B. SANDS reports a case of laparotomy for acute septic peritonitis, due to a perforation of the vermiform appendix by hard fecal matter. The operation was done early, the second day after medical aid had been summoned. An incision was made, beginning at a point half an inch above and to the outer side of the middle of Poupart's ligament, and ending about the same distance below the level of the umbilicus. Incision afterwards prolonged at its lower end three-quarters of an inch inward parallel with Poupart's ligament.

The subcutaneous connective tissue was found edematous, a fact which showed the intensity of the existing inflammation. The deeper layers had a more natural appearance until the peritoneum was reached. This was thickened and bulged into the wound like a piece of intestine. A hypodermic syringe inserted into it drew matter, whereupon the peritoneal cavity was laid open by a free incision; a little air and about an ounce of fetid pus escaped. The parietal peritoneum and that covering the commencement of the large and the adjacent coils of the small intestine, were covered with pus and recent lymph. The peritonitis was not general, but there were no limiting adhesions between the intestinal convolutions. The inflammation was evidently recent, spreading and severe. A spherical concretion, about a quarter of an inch in diameter, was found lying free in the peritoneal cavity. A similar concretion had partly escaped from an opening at the base of the vermiform appendix. There was no gangrene. After suturing

the gut the diseased parts were irrigated with warm water and afterwards syringed out with half a pint of a solution of mercuric bi-chloride, 1 to 1000. Upper part of the wound closed for an inch and a half by silver sutures, the remainder lightly dusted with iodoform and packed with iodoform-gauze, a piece of which was inserted between the parts sutured above and the coils of the small intestine. A few layers of moist bichloride gauze, a pad of borated cotton and a gauze bandage completed the dressing, which was left undisturbed for two days.

The temperature, which had been 101.6° before the operation, fell to 98.5° within an hour after operation, and no unfavorable symptom occurred to interrupt convalescence.

In the same article Dr. Sands discusses the inflammatory affections proceeding from disease of the cecum or its appendix, distinguishing four varieties of allied disorders.

1. The kind of perityphlitis where the inflammatory tumor disappears by resolution, usually after the lapse of one week, but now and then resolution is much longer delayed.

2. Perityphlitic abscess.

3. Acute septic peritonitis, due to ulceration of vermiform appendix or cecum, and escape of fecal matter or pus into the peritoneal cavity.

4. Septic peritonitis of a very deceptive nature, coming on slowly and insidiously, and due to the same cause as in the previous group of cases.

Sands uses the word perityphlitis in this enumeration in its broader sense, including under that designation all inflammatory processes, starting from the cecum or vermiform appendix, which lead to the development of a circumscribed tumor.

In order to distinguish the first group from the second it must be borne in mind that cases of perityphlitis which afterward end in resolution usually pursue a mild course, although they are often attended with acute and threatening symptoms during the first two or three days, a fact which may be fairly ascribed to a localized adhesive peritonitis.

Regarding the treatment of perityphlitic abscesses the author warns against too early operative interference, as these abscesses rarely, even when neglected, rupture into the peritoneal cavity. This danger has been urged in favor of early surgical interfer-

ence, but has been much exaggerated. Also the early and indiscriminate use of the aspirating needle is very dangerous. In Parker's operation, which is the one generally performed, the pus is evacuated by cutting through the fascia transversalis and the parts superficial to it a short distance above Poupart's ligament. This cannot be done at an early period, because at that time the peritoneum, being neither pushed aside nor adherent, would be wounded before the abscess could be opened. Even when the exploring needle is used late, the peritoneum may be wounded before the cavity of the abscess is reached, provided the puncture is made in front and in the usual situation. This has been done so often that the author has ceased to regard the detection of pus with an aspirator as an indication that the abscess can be reached in the ordinary way without endangering the serous membrane. The old rule of keeping the needle in situ in order that it may serve as a guide to the knife should be followed with great caution. In case the peritoneum is found and is non-adherent, the needle should be withdrawn, and, unless the serous membrane can be got out of the way, the opening of the abscess should be deferred until adhesions have taken place. The simultaneous incision into the peritoneal cavity and the cavity of the abscess would be a blunder, as it would then be difficult to prevent the occurrence of septic peritonitis. Under the circumstances described Sands repeatedly found that, if left without further operation, the abscess would subsequently burst into the wound. In one case, which the author cites from his practice, the abscess burst into the wound forty-three hours, in another thirty-one days after the operation.

In the third and fourth groups of cases an early laparotomy—vertical incision over the cecum—should be resorted to as soon as the diagnosis of perforative peritonitis is established. An oblique incision, running just above and parallel to Poupart's ligament, is, even when extended upward, highly objectionable in these cases. Such an incision will enable the operator to explore the iliac fossa and the back of the cecum, and, when the appendix is situated in a retroperitoneal abscess cavity, to remove it, if necessary. But it affords only a scanty and imperfect access to the abdominal cavity, which, when opened at all, should be exposed by a incision that will facilitate the subsequent important steps of the operation.—*N. Y. Med. Jour.*, Feb. 25, 1888.

Sarcoma of Tonsil.—DR. M. H. RICHARDSON reports a case of round cell sarcoma of the left tonsil. Externally there was only slight deformity. Internally the left tonsil was pushed with the pharynx quite to or beyond the middle line. The appearance of the mucous membrane of the pharynx was normal. The growth was indurated, and could be felt under the edge of the jaw from the mastoid process half way to the chin. April 13, 1887, the tumor was removed by incision three inches in length along the anterior border of the sterno-cleido-mastoid. A large portion of the tumor was shelled out and the rest removed by dissection. The upward growth of the tumor in and between the pterygoid plates and its attachment to the base of the skull made its complete removal very difficult, and the probability of return very great. The portion projecting into the pharynx was thoroughly removed, leaving nothing but the mucous membrane of the pharynx. After the operation there was very little venous oozing from the deep parts, which was controlled by pressure. The wound was closed with silk and drained. Corrosive sublimate irrigation, and iodoform gauze dressings. During the evening the throat became swollen and ecchymosed on the left side, causing little dyspnea. The pressure on the outside was therefore removed. The next day the ecchymosis had extended to the frenum of the tongue and down the neck. There was paralysis of the lower lip. Three days after the operation the patient, a woman 60 years of age, could eat and talk without trouble. April 9, throat normal in appearance. May 5, discharged. November 23, 1887, a letter received from her husband states. "She got quite well in three weeks time and has not felt any effects since, and her health is good."

This case is interesting for its rarity, and from the fact that as yet there is no sign of return. The microscopical diagnosis of round-cell sarcoma was made at the Harvard Medical School.—*Boston Med. and Surg. Jour.*

Resection of Left Lobe of Liver.—DR. LANGENBUCH (*Berl. Klin. Woch.*, 1888, No. 3) records a case in which he successfully resected the greater part of its left lobe, which had been extensively deformed by tight lacing, and had caused great inconvenience and trouble to the patient. The woman, about thirty years of age, was in November, 1886, under treatment for erysipelas at the Lazarus Hospital, and when about to be discharged convalescent, she

begged that she might be relieved of a painful abdominal tumor that rendered life unbearable, and caused pain both on standing and on lying down. On examination, a tumor of the size of the fist was detected in the epigastrium—dense, elastic, not fluctuating, moving with respiration, and its dulness continuous with that of the liver. The diagnosis lay between hydatid tumor and deformity from tight-lacing, although the latter condition usually involves the right lobe. An exploratory incision proved that the case was of this kind, but involving the left lobe, and probably for that reason producing the painful symptoms.

Dr. Langenbuch decided that it would be advisable to remove the source of so much distress, especially as the portion of the lobe forming the tumor was practically cut off from the rest of the organ by a broad ligamentous pedicle, and therefore it was functionally of no service. Accordingly, the pedicle was transfixed by ligatures, and the lobe excised. The same evening symptoms of severe internal hemorrhage appeared, and, on reopening the wound, the abdominal cavity was found to be filled with blood; this was sponged out, the bleeding vessels secured, and no further trouble arose from that source. The wound healed, but recovery was somewhat retarded by the development of ascites, which necessitated tapping on two occasions. It could not be determined how far the ascites was 'due to the cardiac debility and hydremia resulting from the previous prolonged attack of erysipelas and the profuse hemorrhage, or how far it might have depended on the diminution of the hepatic circuit.

There was edema elsewhere, so the former hypothesis had some support. At any rate it was not permanent, and the patient left in February quite well. The portion of liver removed weighed three hundred and seventy grammes (about twelve ounces). Dr. Langenbuch says that the case shows the feasibility of removing the lobe of a tight-laced liver when this gives rise to serious discomfort.—*Medical Record*.

The Addition of an Acid to Corrosive Sublimate Solutions to Increase their Antiseptic Power.—DR. E. LAPLACE has made a series of experiments in order to determine whether sublimate dressings, such as gauze, cotton, rollers, etc., were really aseptic (*i. e.*, free from microbes) and antiseptic (*i. e.*, germicidal).

He found that while most of the dressings were aseptic, none of

them exerted positive antiseptic powers. It has been proven by numerous investigations that when the sublimate solution is brought in contact with albuminous fluids, an insoluble albuminate of mercury results, which is entirely devoid of antiseptic properties. This takes place when sublimate dressings are applied to the body, and explains the poor results obtained from their use in some cases. Laplace found that the addition of an acid to the sublimate will prevent this coagulation. He especially recommends tartaric acid.

The following are his conclusions:

1. Acid solutions of corrosive sublimate exert the full effects of the drug, even in albuminous fluids.
2. The combination of an acid with the sublimate increases its antiseptic powers, so that weaker solutions are required.
3. The acid sublimate dressing does not interfere with the employment of other measures—caustics, iodoform, etc.
4. The acid sublimate solution and gauze gives more satisfactory results in the laboratory and in practice than other disinfectants.
5. The wounds are not irritated.

The solution employed by Laplace is the following:

Hydrarg. bichlor.,	-	-	-	-	1.0
Acid tartaric.,	-	-	-	-	5.0
Aq. destill.,	-	-	-	-	1000.0

Gauze, cotton, etc., are soaked for two hours in a solution of

Hydrarg. bichlor.,	-	-	-	-	5.0
Acid tartaric.,	-	-	-	-	20.0
Aq. destill.,	-	-	-	-	1000.0

The author obtained very satisfactory results with this dressing in the treatment of suppurating wounds. The fetor rapidly disappeared, granulation was established, and the dressing remained sterile, in one case for six days.—*Medical Record*.

Successful Removal of a Spinal Tumor.—A patient of Dr. Gowers was recently shown, at the London Medical and Chirurgical Society, from whom a spinal tumor had been successfully removed by a surgical operation. He had spent about three years in severe pain, which was most intense just below and inside the angle of the left scapula, and was accompanied by absolute loss of motion and sensation of the body and limbs below that level. The upper border of the anesthesia was distinctly in the region of the fifth in-

tercostal nerve on the left side; on the right it was less accurately defined, but it did not extend higher. All the symptoms agreed with those of tumors of the spinal cord, and the intense pain afforded ample justification for making an attempt to excise the tumor. Mr. Victor Horsley accordingly removed the spines and parts of the laminæ of the fifth and fourth dorsal vertebræ; but not until the third vertebra had been similarly treated did the tumor come into sight. It was a small oval myxoma, compressing and making a deep impression on the left side of the spinal cord below the third vertebra. It was easily shelled out, and under careful antiseptic treatment the temperature did not rise more than 1° F. The wound healed rapidly, except at the uppermost point, where a drain had been left in, by which a little cerebro-spinal fluid flowed away very slowly. For three or four weeks the former acute pain did not lessen, and even at times seemed more agonizing; but after that it gradually and continuously decreased, and now, after seven months, is entirely gone; the sensation and motion of the body and legs are almost completely restored.—*Med. Record*.

GENERAL MEDICINE AND THERAPEUTICS.

BY L. T. STEVENS, M. D. ST. LOUIS.

On the Use of Strychnine as a Hypnotic.—T. LAUDER BRUNTON, M. D., F. R. S., says that excessive fatigue, bodily or mental, but especially that which follows intense mental strain or worry, is perhaps the most intractable of the causes of insomnia. It occurred to the author that if he could convert the condition of over-fatigue into one of simple fatigue, sleep might come without the aid of a hypnotic. He selected strychnine as being the most powerful of nerve-stimulants, and, giving it in the form of the tincture of nuxvomica (minims 5 to 10) or the pure alkaloid (gr. $\frac{1}{200}$ to $\frac{1}{60}$), obtained most happy results without any disagreeable after-effects. It was given at bed-time, and repeated in the course of an hour or two, if necessary. It is doubtful if the drug would act in insomnia arising from other causes, though in one case of sleeplessness associated with anemia, a good effect was apparently obtained.—*The Practitioner*, Jan. 1888, p. 28.

Strychnine in Alcoholism.—DR. IAROSHEVSKY from an experimental inquiry into the antagonism between strychnine and alcohol, draws the following conclusions:

1. Strychnine undoubtedly neutralizes the intoxicating and narcotic effects of alcohol.

2. It enables large quantities of alcohol to be taken for a considerable stretch of time without causing the usual organic changes which follow the use of alcohol alone.

3. There are, however, limits beyond which the alkaloid itself becomes injurious to the organism.

Therapeutically, strychnine should be used in all forms of alcoholism.

5. It may be regarded as a powerful prophylactic against alcoholism.—*British Medical Journal*, Jan. 14, 1888, p. 90.

Treatment of the Paroxysms of Migraine by Acids.—DR. A. HAIG has called attention in several publications to the relation in time between paroxysms of certain forms of migraine and the excretion of large amounts of uric acid, with the possibility of diminishing almost at pleasure the excretion of the acid by giving acids, and increasing it by giving alkalies.

In a short article, this author recommends a method of treatment which he has found highly successful, and which consists in administering in a tumbler of water 40 to 60 minims of dilute nitrohydrochloric, or any other acid that will render the urine acid, one-half to be taken at once and the rest in the course of 30 to 40 minutes; the headache is much better within an hour and quite gone within an hour and a half from the first dose. The theory of its action is, that it diminishes the increased amount of uric acid present in the blood during the paroxysm which acts as the irritant. The best preventive treatment is a diet without butcher's meat, beer, wine, etc.—*British Medical Journal*, Jan. 14, 1888, p. 73.

Benzoate of Soda in Uremia.—Starting from Cohnheim's theory of uremia, and from the fact that benzoate of soda inhibits the formation of urea within the system, Dr. A. S. Partzeosky, of Moscow, administered this substance in ten cases of uremia. The drug was given every hour, in daily doses of one to two drams—nine cases recovered, one died. Analysis of the cases leads to the conclusion that benzoate of soda cuts short uremic attacks, the convulsive phenomena gradually disappearing and giving place to a

deep sleep, which in the majority of cases terminates by passing into full consciousness. Given on the first appearance of symptoms, the salt may prevent any further development of the attack. Albuminuria mostly disappears altogether.—*British Medical Journal*, Jan. 14, 1888, p. 90.

Antipyrin in Whooping-Cough.—DR. J. P. C. GRIFFITH, of Philadelphia, publishes 15 cases of pertussis in which treatment with antipyrin was tried with generally excellent results. His experience is in accordance with that of Sonnenberger, the originator of this method of treatment, that the drug is most efficient when given early in the disease. Under these circumstances, as shown by Sonnenberger, the drug acted to shorten the duration of the disease to three to five weeks; and to diminish greatly the frequency and severity of the paroxysms, the cases not having more than six or seven mild paroxysms a day. The paroxysms often became less violent after the first dose and after several days diminished in frequency; when the drug was stopped the symptoms rapidly grew worse. Good results have been obtained by both investigators, when the treatment was begun at the acme of the disease. In only five out of seventy cases of Sonnenberger, complications were observed, and in no case was there antipyrin collapse. Sonnenberger gave the medicine in doses varying from one-seventh of a grain, to seven to fifteen grains thrice daily. Dr. Griffith has given as much as two grains every two hours to a child one year old in the acmé of the disease; his method at the beginning of the disease is to start with one to two grains every four to six hours, and increase the dose gradually according to necessity.—*The Therapeutic Gazette*, Feb. 1888, p. 84.

Antipyrin in Hay Fever.—DR. ADOLPH BLOCK, of Havre, has reported excellent results from the use of this drug in a case of spasmodic rhinitis. The affection was of two years' duration, and manifested itself in the morning on rising and in the afternoon when a window was opened, by painful attacks of sneezing, with a copious discharge of mucus; severe itching and pricking in the eyes with incessant watering of them; and pain in the head over the frontal sinuses. In the interval between attacks there was entire absence of these symptoms. The throat and nasal fossæ were normal. After potassium bromide, belladonna and cocaine had

successively been tried without much benefit, antipyrin (30 grains daily) was administered at the time the attacks were wont to come. During the eight days immediately following only two slight attacks occurred. The treatment was discontinued for six days, during which there were no attacks, and was then resumed. During twenty days only two slight attacks occurred; antipyrin (15 grains) was then administered daily before breakfast, and continued for a while. There were no further recurrences, and a month after a discontinuance of the drug, the patient reported still freedom from his trouble.—*Brit. Med. Jour.*, Jan. 7, 1888, p. 40.

Antipyrin in Nervous Drowsiness.—Dr. ADOLPH BLOCK relates the case of a young man, with a neurotic family history, who complained of an irresistible inclination to fall asleep every day after lunch. The complaint had existed since an attack of typhoid fever, which he had two years previously. There was impairment of digestion, weakness of legs, itching in various parts of the body, and tenderness on pressure over the last three cervical and first three lumbar vertebræ. Under tincture of nux vomica the digestion improved and the drowsiness diminished; but eight months later there was a return of the drowsiness, accompanied by headache and debility. Fifteen grains of antipyrin were prescribed in the morning on getting up, and again at 11 A. M. daily. In four days headache and drowsiness disappeared. The dose was reduced to 15 grains daily, given at 10 A. M., and the treatment alternately discontinued and resumed during the next 11 weeks. However, when the drug was stopped altogether the cure was complete and permanent. In this case antipyrin acted as a nervous stimulant, like black coffee, only more active and with a more complete result.—*Brit. Med. Jour.*, Jan. 7, 1888.

Antipyrin as a Hemostatic.—In a recent publication by HENOCQUE, important hemostatic properties are claimed for this drug. It is applied directly to the bleeding surface in powder, solution, or incorporated in an ointment; for epistaxis it can be snuffed up the nose; for metrorrhagia, it can be applied to cervix or cavity on a suitable tampon; for wounds he generally used a solution of 5 to 20 per cent, the latter strength being recommended for deep cavities. Antipyrin cotton, soaked in boiling water previous to use, is a convenient method of employment. The hemostatic, combined

with the antiseptic property which it possesses, would make it a valuable addition to the armamentarium of the surgeon and general practitioner.

Pryvalkevitch has used it internally, with excellent results, in ten cases of hemoptysis (the cases including phthisis, bronchiectasis, cardiac disease, and traumatic injury of chest). He used a mixture containing $\mathfrak{Z}\text{ss}$ of antipyrin to $\mathfrak{Z}\text{iv}$, of which a tablespoonful was given every two or three hours. In no case were more than two doses necessary to completely stop the hemorrhage, even when the daily loss amounted to two pounds. In some of the cases ergot and other hemostatics had previously been tried without effect. —*Med. and Surg. Reporter.*

The Diphtheroid Throats.—Certain well recognized acute affections of the throat, easily distinguished from follicular tonsillitis, characterized by local appearances resembling more or less closely those of diphtheria, are classified along with this disease by the majority of general practitioners. The cause of this confusion is to be found in the absence of satisfactory description or even distinct recognition of these affections from many of our best text books on general practice and on diseases of children. Dr. S. Solis-Cohen sums up the present knowledge concerning "diphtheroid throats." Excluding that rare affection, acute mycotic sore throat, non-diphtheritic or diphtheroid throats may be put into three classes: herpetic, membranous or croupous, and septic or "drain-throat" of J. Solis-Cohen. The herpetic throat is characterized by the appearance upon soft palate, uvula, palatine folds or tonsil, of small vesicles, widely distributed or grouped, which rupture and become covered with a fibrinous exudation, and finally coalesce into patches of distinct outline and rounded or oval shape; sometimes the patches coalesce to form a veritable sheath to the structure on which they may be situated. The tonsil is usually swollen, often inflamed, but at times is intact. In the membranous variety, an exudation quickly appears and often rapidly spreads, frequently appearing in the pharynx, sometimes attacking the previously healthy side as it disappears from the side first affected; the tonsil is usually swollen and inflamed. In the "drain-throat" there appear, usually on the tonsils, uvula or posterior palatine folds, one or two scattered oval shallow ulcers, with long axes more vertical than horizontal, and covered by a grayish pultaceous deposit. In

all these varieties constitutional symptoms may be present or absent, mild or severe, usually present in children and are more severe than in adults; they accompany the first two varieties most frequently; when there is fever with "drain-throat" it is usually low and associated with considerable depression.

They possess certain characteristic symptoms in common:

1. Constant intense pain on swallowing, usually unilateral; this is usually the first symptom, and inspection would show simply a slight congestion of tonsil on palatine arch.

2. The characteristic manifestations are usually one-sided. One tonsil is most frequently the seat, and in addition to the tonsillar patches, or even without co-existing tonsillar patches, similar deposits may be present on the mucous membrane of neighboring parts, rarely on the posterior pharyngeal wall or hard palate.

3. Neighboring lymphatic glands undergo little or no enlargement, but are often very sensitive to pressure on the side affected.

4. The disease is not contagious.

5. Recovery is almost invariable.

With reference to pathology, nothing can be said except that the false membrane is more shallow and circumscribed than in diphtheria.

Diagnosis is usually made easy by close attention to the above-mentioned points. Certain general points are sometimes valuable aids—absence of albuminuria, presence of herpes on lips, face or elsewhere, tendency on the part of some patients to a special variety of diphtheroid throat. In some cases, however, it is impossible to exclude diphtheria until after it is all over, and when there is the least doubt the case should, of course, be treated as diphtheria. The duration of these affections is from 2 to 10 days; a "drain-throat" may be well within 24 hours.—*Arch. of Pediatrics*, Feb., 1888.

The Etiology of Pnevmonia.—Weichselbaum thus sums up his conclusions on this subject:

- "1. The bacteria found in the different forms of pulmonary inflammation are to be regarded as the cause of these. This conclusion is completely justified on these grounds: Definite, well characterized species of bacteria not only occur constantly in acute pulmonary inflammations, but can be demonstrated in greatest abundance and activity in the earlier stages of the inflammation; they

have been isolated, cultivated and when introduced into certain animals have produced processes which, taking them in toto, correspond to inflammation of the lung in man.

"2. The pneumonic virus is no unity, inasmuch as acute pulmonary inflammations, even croupous pneumonia proper, can be produced by different kinds of bacteria. In this the pneumonias recall acute inflammations of the connective tissue, in which also several species of organism occur.

"3. The separation of pneumonias into lobar and lobular, croupous and non-croupous, has an anatomical, but no etiological significance. Moreover, the so-called secondary pneumonias, etiologicaly considered, are often not secondary.

"4. The *diplococcus pneumoniae* is to be regarded as the most frequent exciter of inflammation of the lungs. Friedlaender's bacillus organism does cause croupous pneumonia, but can only rarely be the cause, if we may trust the author's results and generalize upon them.

"5. As regards catching cold, W. would allow for that cause only a possible predisposing effect in pneumonia."—*The Practitioner*, Jan., 1888, p. 57.

A Contribution toward the Etiology of Phthisis.—DR. PHILLIPS, of Edinburgh, limits himself to the question of the actual cause of death in phthisis. The various causes stated in literature may be classified under four heads: progressive asthenia, loss of hemato-sis, the lighting up of fresh inflammatory foci, the absorption of waste products. Since the discovery of the probable cause of phthisis, the bacillus tuberculosis, nothing has been contributed toward this subject, notwithstanding the striking similarity, in symptoms and course, between spontaneous and induced phthisis. As has already been hinted by Dr. H. Weber in the Croonian lectures for 1885, the fatal properties of the bacillus are probably due to its power of elaborating new products which become absorbed. This view is in accordance with what is known of septicemia, with the broad principle of fermentation, that a certain line of chemical action is excited by the entrance of a given microbe into a nutritive medium, and is suggested by the rapidity and character of growth of pure cultures and their effect on the medium.

To test this hypothesis, experiments were made on animals with extracts of fresh sputa obtained from patients exhibiting signs of

active advanced phthisis, with positive results. Such extracts were found to be possessed of well marked physiological and toxic properties, which are, generally speaking, depressant, and include more particularly a marked depressing influence on the heart, excited, apparently, through the medium of the cardio-inhibitory mechanism; this action is more or less completely opposed by atropia. The amount of toxic product that may be separated seems to bear a distant relation to the abundance of the bacillus elements present. Absorption of the poisonous products most probably occurs by way of the lymphatic circulation.—*Brit. Med. Jour.* Jan. 28, 1888.

Antiseptic and Antipyretic Treatment of Phthisis.—W. A. SPENCER, M. A., M. D., says: In the treatment of phthisis it is the aim to induce healing of the damaged lung tissue, and this by means of fibroid substitution. The same conditions must be secured and measures adopted that are found successful in dealing with suppurations, ulcerations and like lesions in parts exposed to view. Adequate nutrition must be supplied; pyrexia must be treated on its own account as a general and constitutional state, apart from the local suppuration or ulceration; and the lesion should be brought under the influence of antiseptic remedies, both by internal medication and by external applications, which influence should be complete, continuous and prolonged.

Two cases are published in detail of acute pneumonias passing into acute pulmonary tuberculosis, in the treatment of which the above mentioned principles were followed as closely as possible; the result was eminently successful in one case, partially so in the other. The treatment was as follows:

1. General tonic remedies, cod liver oil and a generous diet.
2. The use of quinine to combat fever, as much as 30 grains daily, if necessary. The temperature must be taken frequently during the day, for it was noticed that it fell to adopting different hours at which to reach its maximum; accordingly, the time for giving the quinine required to be changed, or an extra dose given.
3. The administration of iodoform in one-grain doses every four hours. These amounts were not sufficient to disturb the stomach, and could be taken regularly for a long time—9 months, in one case. Given thus frequently and continuously, it is absorbed into the circulation, and carried to the lungs, manifests effects which

are unequivocally good, whether they be in an antiseptic direction or any other.

4. The inhalation of oil of eucalyptus continuously, except during meals and at night; from this no unpleasant effects were experienced. Thus administered, the author sees no reason for doubting that the vapor reaches the residual air of the lungs and bathes the affected tissues.—*Brit. Med. Jour.*, 1888, p. 184.

Zur Blutvertreibung des Lungen Kreislaufe im Gesunden und im Krankhaften Zustande.—DR. C. MORDHORST, of Wiesbaden, has a very suggestive article (in the *Deutsch Med. Woch.*, XIII., 129 and 130) on the causative relation between mal-nutrition and superficial respiration, and tuberculosis. The presence of a catarrhal secretion in the bronchioles and acini is essential to the settlement and growth of the bacillus tuberculosis. Persons suffering from mal-nutrition have defective heart action, a low arterial pressure, a high venous pressure; there results a venous stasis in the lungs and a consequent tendency to catarrh. Superficial respiration, whether it be due to poor development, or be an acquired condition, resulting from general weakness, or any disease which hinders respiration, leads also to pulmonary venous stasis by forcing the lungs to remain in a condition of collapse, approaching that found in expiration, during which the blood capacity of the lungs is the greatest. The practical conclusion is the necessity of unloading the pulmonary vessels, and this happens best by bettering nutrition and active exercise (climbing mountains), or by the steady use of the pneumatic cabinet.—*Schmidt's Jahrbuch, p. d. ges. Med.*, 1888.

Failure of the Heart in Valvular Disease.—J. MITCHELL BRUCE, M. D., says: Time was when, in a cardiac case with palpitation, dyspnea, cough, and threatening dropsy, one was satisfied with the diagnosis of "mitral incompetence." Nowadays this would be regarded as insufficient, and would be completed by saying, "mitral incompetence with cardiac failure." The author considers that this is still lacking; the cause of the cardiac failure is needed to complete the diagnosis, and which will enable one to offer prognosis and apply treatment judiciously. The cause is to be determined by inquiring carefully into the habits and surroundings of a patient, and it will frequently be found to be a combination of several or more evil influences. The author from a long practical experience in this direction is enabled to offer the following as some of the most frequent of the individual causes of broken com-

pensation, stated in the order of importance and frequency of their occurrence: 1. Muscular overwork. 2. Nervous causes—depressing emotions, excitement of a pleasing kind, worry, severe and continued nervous strain. 3. Improper blood supply to the heart, either in the direction of amount of blood (disease of coronary arteries), or of its character (blood poor in quality from malnutrition or laden with products of disordered digestion, deranged liver action, and imperfect elimination, a condition met with in the rich, sedentary and overfed.) To this second class belong those cases of quiescent valvular disease treated with rest and nourishment to the extent of abuse, and those who have “retired” from a life of activity to enjoy “well-earned rest.” 4. Intercurrent diseases, especially rheumatism and lung diseases, acute and chronic. 5. Causes peculiar to women—abnormalities of menstruation, pregnancy, parturition, puerperal state, abortion, lactation, menopause; causes which are evidently complex in nature. 6. Cardiac poisons in every-day use—tea, coffee, tobacco, alcohol. 7. Increase of valvular lesion, sudden (rupture of a diseased valve) or gradual (as in progressive mitral stenosis). 8. Limit of compensation.

A successful prognosis in cases of cardiac failure depends on a correct diagnosis of the cause of failure. It may be said to be favorable when the cause is removable, as in muscular overwork except when the failure results from a strain, when the case may be most serious; impaired general nutrition; toxic causes, except alcoholism; and previously misapplied treatment—routine treatment irrespective of cause. The prognosis is uncertain in cases of failure due to nervous cause, which often cannot be controlled; aggravation of the original valvular lesion, the prognosis depending on the extent of aggravation and on fresh compensation; climacteric causes, especially uncertainty in pregnancy and post partum; and undiscoverable causes. It is unfavorable when the cause is irremovable, as in impaired local nutrition (disease of root of aorta and coronary vessels); intercurrent rheumatism, especially in young subjects, and acute pulmonary disease; and when the limit of compensation has been reached.

The general principles of treatment according to the views presented in this paper may be stated as follows:

1. Do not “treat murmurs,” but first be sure that the heart is failing.
2. Do not apply treatment in a routine fashion; rational treatment begins with attention to cause.

3. If the cause of cardiac failure be undiscoverable or irremovable do not hesitate to treat the effects.—*The Practitioner*, June, 1888.

The Advantages of Strophanthus.—The following is a summary of the action of strophanthus by PROFESSOR LANGAARD:—“(1.) All observers speak highly of the beneficial action of the drug upon the heart. The contraction of that organ is stronger and more vigorous; the pulse fuller, more regular, and slower. (2.) The different disturbances of respiration—dyspnea and asthmatic affections, as also the distress and anxiety of the patient, are more relieved by strophanthus than by digitalis. (3.) The secretion of urine is often enormously increased, and the edema disappears. This effect is not only produced in cases of heart disease, but also in morbus Brightii, in such a high degree indeed that strophanthus may in this disease entirely supersede digitalis. (4.) The unpleasant effects often following the use of digitalis, such as loss of appetite, nausea and vomiting, which sometimes necessitates its discontinuance, are very rarely observed with strophanthus. (5.) The remedy does not possess any cumulative effect. The absence of this property enables physicians to administer it for several weeks without interruption, which is not possible with digitalis without producing toxic effects. (6.) The effect is very rapidly produced, but is not so lasting as that of digitalis. (7.) Strophanthus is to be preferred to digitalis when a quick effect is desired; where great dyspnea, distress and anxiety are suffered by the patient, which digitalis does not influence; when a sustained stimulation of the mechanical action of the heart is necessary; and when digitalis can not be given on account of its cumulative action.—*The Pract.* Jan. 1888.

On Certain Nephralgias Simulating Renal Calculus.—The possibility of certain nephralgias possessing several or all of the principal subjective symptoms of calculous disease of the kidneys, and the absence of pus and blood from urine with the presence simply of dragging pains in the lumbar region during the quiescent stage of renal calculus renders the discrimination between these two affections at times extremely difficult, if not quite impossible. DR. C. H. RALFE classifies these nephralgias into four groups: 1. Neu-roses of kidney. A true neuralgia of the kidney is certainly very rare. The aching lumbar pains of some delicate women during or after their menstrual periods, have been regarded as neuralgic; but these are rather the result of a distended capsule arising from an exagger-

ation of the renal engorgement that takes place normally during these periods. Renal neuralgia is said by some to follow in the train of malaria, but this is doubtful. Reflected neuroses are, however, not rare. Persons suffering from organic heart disease are occasionally subject to acute nephralgias of sudden onset and equally rapid decline; attacks which received the name of "renal storms" from the late Dr. Murchison. They may exist in connection with inflammatory affections of other organs; in pneumonia the pain is at first frequently lumbar rather than dorsal, and mistakes in diagnosis have arisen from this fact. In diseases of the bladder the pain may be nephritic for a time, then suddenly shift to the hypogastrium. 2. Nephralgias from disease of contiguous parts. An ulcer or other disease of the duodenum may give rise to paroxysmal lumbar pains with vomiting and great tenderness over the right kidney; but close study will show a relation between these symptoms and the food. Caries of the spine with beginning psoas abscess may give rise to pain in the lumbar region, but careful examination will sooner or later reveal a tender spot somewhere along the spinal column. 3. Nephralgias from diseases of the kidney. The "tender kidney" is probably caused by some displacement of this organ with a consequent perinephritis. The passage of a hydatid vesicle, a mass of tubercle or cancer gives rise to a colic often indistinguishable from calculous colic until the mass comes under observation. 4. Nephralgias due to functional derangements of the urine. Such cases are observed in persons who have led easy and luxurious lives; after some slight intestinal disorder or after taking cold uneasiness in the lumbar region is complained of, gradually increasing and extending forward and downward into groin and testicle; with this there are gastric disturbance and frequency of micturition with a scanty, acid and highly-colored urine; often the colic by pains and urinary symptoms become greatly exaggerated, but under careful general treatment the symptoms rapidly clear up. Finally, there is a class of nephralgias connected with functional derangement of the kidneys, occurring in emaciated individuals, where there are associated various nervous symptoms—flushings of various parts of the body, tinnitus aurium, pain and soreness in epigastrium, along the course of the nerves of the arms, thighs, etc.; accompanied by great disturbance of assimilation and consequent progressive loss of flesh, and a condition of the urine leading to the deposit of calcic oxalate and phosphates. The termination of such cases is often critical and unfavorable.—*Brit. Med. Jour.* Jan. 28, 1888.

DOMESTIC CORRESPONDENCE.

NEW YORK LETTER.

NEW YORK, March 15, 1888.

EDITOR COURIER:—The principal talk of the day in this city is of the untimely and unexpected severe snow storm. Blizzards are so little known here that even the doctor who usually button-holes you on a windy corner to tell of his recent remarkable experience in practice now forgets even to mention how busy he has been, but regales you with an account of how he was caught on the wrong side of a drift or upset into a snow-bank. It is an ill favored blizzard that blows no one any good, and indeed, besides the thousands of needy men who have found employment for a few days in shoveling snow, there are not a few physicians who might see the outline of the hand of Providence stretched over a broken bone or pair of frozen ears. Let not your reader in the blizzard zone smile at us here, as he thinks of his many rides by night in wind and snow. The elements may not be so unkind, but there are more of us here to suffer, and besides it wasn't such a slight flurry after all. Why, our milk supply was all cut off and is still, and this as you may imagine is a serious matter for our invalids and infants. But let us turn to more profitable topics.

At the hospitals there is not much doing just now.

The medical schools have once again increased the goodly number of doctors, one hundred and fifty seven graduating last week from the University. The spring terms have not yet begun, clinics are at a stand still, and altogether it is a quiet between times. Though all the machinery for making doctors may stop, (alas too many show their machine make) disease goes on forever.

DIPHTHERIA

has been quite prevalent of late in and about New York and it is reported to exist extensively in Newark, N. J.

With some practitioners intubation of the larynx gives excellent

results when death is threatened from croup, while others who tried the method more or less extensively after O'Dwyer brought it out as the result of many years of patient labor and investigation, have practically abandoned it for tracheotomy. Each operation has its warm advocates. Dr. Brown, who next to Dr. O'Dwyer has probably seen more of intubation than anyone else in the city, tells me that he has had 30 per cent of successful cases this winter, and that of the last 25 cases more than half have recovered. It is seen from Dr. Brown's statistical record of 806 cases, presented at the New York Academy of Medicine, June 2, 1887, that only 221 recovered, a little over 27 per cent. Dr. Caillé believed at this time that while in general practice intubation is preferable to tracheotomy in urgent laryngeal stenosis in children, the latter operation is better (provided the surroundings be favorable) in cases with pharyngeal or nasal diphtheria which appear hopeless unless sufficient stimulation and nourishment, and proper local treatment of the naso-pharynx can be given. Dr. O'Dwyer is as enthusiastic over intubation and as actively employed in performing it as ever.

SMALL-POX

has not created much alarm in this city, but in Brooklyn it has prevailed to the extent of about 750 cases during January and February. An appropriation of \$22,000 has been made for a contagious disease hospital there, as I learn from the *Brooklyn Med. Jour.*, the new and creditable organ of the Kings County Society.

We have had a case or two of variola at Charity, and two nurses who attended one patient until he could be sent to the new Small-Pox Hospital on North Brother's Island, both contracted the disease, but only in a mild form.

Two small-pox patients have been found this winter sitting among the skin diseases in the dispensary department of Bellevue, and last winter I discovered two who had wandered in to have their skin disease treated, and had them promptly isolated.

Though there are specialists for almost everything nowadays, Sheffield England has reserved for itself the honor of bringing out a specialist for small-pox. The disease has been a veritable plague in that city, where no compulsory notification or vaccination law exists. The specialist Mr. Herring claimed to cure small-pox in two days. His *modus operandi* is very simple "the blood was reduced to its natural heat; and as the blood was stopped from be-

ing inflamed, the flesh was prevented from being mortified."

A doctor the other day, got a note from a lady asking him to call at once as her husband had small-pox. He lost no time in reaching the house, to find the man suffering from rheumatism, and so announced it. Yes, said the wife we all knew he had rheumatism but none of us knew how to spell it.

LAPAROTOMY FOR RUPTURE OF THE UTERUS.

Dr. Garrigues read a paper on this subject in the obstetric section of the Academy of Medicine, Feb. 23. He had operated the previous month on a woman who had had six children. The head had presented, and the bag of waters had ruptured, when the patient was seen to grow nervous, and an examination showed the head to have receded and that the uterus was ruptured. The child could be made out through the abdominal walls to the right of the contracted uterus. An incision four inches in length and reaching the symphysis pubis was made in the median line. The child which was very large, was dead, and the rent in the uterus, which was eight inches long, was sewed up with a double set of sutures and folding in of the peritoneum prevented. The patient lived four days and died of peritonitis.

The author has found the accident to occur once in about three thousand deliveries, and usually in those who had borne many children. The child almost always is lost, the mother rarely survives; death being due to peritonitis or hemorrhage.

Dr. McLane had a successful case which he reported about two years ago. In this case only a part of the child's body had escaped into the abdominal cavity and was extracted per vaginam after version. The rent was low down and she made a good recovery without laparotomy. In another case which was almost hopeless he had performed laparotomy and the patient had died.

Dr. Murray's paper on the

INTRA-UTERINE DOUCHE

in the puerperal state brought out the views of several obstetricians. Dr. Dudley spoke of the dangers of using antiseptics in the injected fluid, and could not see the necessity for them. Dr. Garrigues uses not over three pints of a 1 to 4000 corrosive sublimate solution, once in twenty-four hours and introduces iodoform pencils in the intervals. The uterus is always to be pressed out after

the injection. Dr. Mundé employs hot water where there is rise of temperature and offensive discharge and never corrosive sublimate, as poisoning has resulted so frequently, and besides he regards its germicidal powers as of no value in washing out the uterus. When there is nothing in the uterine cavity to be washed out irrigation is useless. Intra-uterine irrigation he says may be dangerous. He doubts the germicidal properties of the iodoform pencils and would not use them in the uterine cavity.

The reader of the paper thought the douche indicated as a prophylactic measure in certain cases of apparently normal labor with prolonged second stage and acrid discharges. If after delivery the lochia become scanty, the os is found patulous, and a fetid odor is communicated to the examining finger, the uterus should be cleansed at once. The patient is not to be lifted but moved to the edge of the bed. Water is to flow from the tube as it is introduced and withdrawn to prevent entrance of air. The uterus is firmly grasped from without to prevent distention. Shock, collapse and the danger from peritonitis are thus avoided.

CHARLES W. ALLEN, M. D.

THE MEMPHIS MEDICAL MONTHLY is the present name of the journal which we have been familiar with for several years under the name of the *Mississippi Valley Medical Monthly*. Dr. F. L. Sim is still in the editorial chair together with Dr. Neely.

CREMATION VS. POTTER'S FIELD.—The director of the New York City asylums of various sorts is urging the erection of a crematory for the disposal of the bodies of unclaimed dead of the city institutions. It is said that the Potter's Field now receives an average of twelve bodies daily, and the available burial space is becoming greatly crowded. We have always favored cremation, but if a public crematory shall dispose of all the unclaimed bodies of the dead in public institutions whence shall come the supply of *materiel* for the dissecting rooms. Let the crematory be built by all means, and let every facility be afforded for cremation by the poor and those of limited resources at the lowest possible price, but let the bodies of unclaimed dead be utilized first in the dissecting rooms, and then cremated if thought advisable.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, Feb. 26, 1888, DR. COLES, Pres., in the chair.

CANCER OF UTERUS.

Dr. Hulbert.—I have here a specimen of cancer of the womb which I removed this afternoon. The history is about as follows: The patient, æt. 42 years, the mother of five children, the last about two years old. She had no difficulty as to the uterine functions until within the last six months; she has always been exceedingly healthy, never had any difficulty with her labors, and never required the attendance of a physician for any disease outside of her confinements. About six months ago she noticed that the menstrual flow was rather excessive and was coming a little more frequently. About four months ago she had her first hemorrhage—at least what would be considered a hemorrhage, which occurred after coition. This was the first time that she felt satisfied that there was anything the matter with her. Then the matter of treatment was delayed until I think two or three weeks ago, when Dr. Hypes was called to see her and requested an examination. He found apparently an epithelial cancer of the cervix, a nodule about the size of a walnut involving the posterior surface. The anterior surface was entirely free, and to all appearance there was nothing about the uterine mucosa that indicated involvement in the trouble. About a week or ten days ago he asked me to see the case in consultation with him; and I found that there had been a very decided increase in the growth. It was fully the size of a good sized lemon, involving the posterior part of the cervix and also extending to the vaginal wall. The anterior lip at that examination appeared healthy, being only slightly edematous. About a week ago I found that this growth had commenced to ulcerate very rapidly, and I was very much struck at the excavation that had been made in the presenting part of the epithelial growth. Shortly after that, I received a letter from the husband stating that she had consented to the operation for its extirpation. Today the

operation was performed without a great deal of difficulty. Today I found that the inferior part of the left broad ligament had become somewhat thickened. The peculiar feature about this case has been its rapid development, the rapidity with which the changes have occurred. I am quite satisfied that at the first examination the ligament was free, and that there was no thickening; at the examination before the last there was some evidence of thickening.

Dr. McPheeters.—Was it not developed very rapidly for an epithelioma, which is a slow growth?

Dr. Hulbert.—The patient is satisfied that six months ago she had no growth. Of course that is only her statement, as she had no examination made. The operation I made was probably Martin's operation, although perhaps in one or two particulars I may have varied the operation. I first opened Douglas's cul de sac to the union of the peritoneal and mucous surfaces, then ligatured the inferior half of the broad ligament including in the ligature the inferior uterine artery. After that I opened up the space between the bladder and uterus and cut into that, then placed another ligature, including a little more of the inferior side of the ligaments. After that I dissected out the cervix, carried it up to the limit of my first ligation, then pulled the tissue down, and I was not compelled to evert the fundus through the cul-de-sac of Douglas, which I understand Martin generally does, but I found it was much easier in this case to bring it out anteriorly.

Dr. Engelmann.—Martin brings it out anteriorly.

Dr. Hulbert.—Then I have done just as he does. I removed both ovaries and both tubes, so the operation is a complete one. In the right ovary is a sac that would probably have developed into an ovarian tumor. The growth here is a typical one. There was a very free hemorrhage from the cavity of this sac. There are also some small cysts in the broad ligament, possibly an extension of the malignant growth. If this thing recurs in the patient it will probably be from that site. I am satisfied that, so far as the mucous membrane of the vagina is concerned, there was no evidence of epithelial tissue. There was a pretty smart hemorrhage until I got the bladder and uterus separated and the second ligature placed. It is a very difficult thing to get these ligatures drawn tight in position. The patient came from under the anesthetic very nicely and the last time I saw her she did not seem to be

suffering much from shock. I dressed the wound by placing in the peritoneal cavity a cross shaped Martin's drainage tube, brought the peritoneal surfaces together by a cat-gut continuous suture, and the opening left was simply enough to allow the tube to pass through. I continued the tube down and out of the vulva, then filled the vagina with iodoform, placing a very light cotton tampon at the vulva and outside that I dressed the part with iodoform and absorbent cotton.

Dr. Engelmann.—The specimen is a beautiful one, but I should be very much afraid of the tissue that the doctor speaks of. Of course we can not tell from appearances, but when I look at the original insertion it appears almost to go through.

Dr. Hulbert.—I will say that we cut off a good deal of tissue which is not there, so that really we took away a good deal more than is presented in this mass.

Dr. Engelmann.—Well, that makes a difference, of course. It is a great pity the case was not seen a little sooner, but my own experience in those cases has been a little unsatisfactory. I recall three cases of cancer of the uterus, two of the fundus and one of the cervix which was absolutely limited to the uterus; the uterus was perfectly movable and the tissues all free. This was before the time of the vaginal operation, immediately after the first appearance of Freund's method. In two of those cases section was made of the abdomen, and I discovered beginning infiltration in the one instance and of adhesions to the omentum in the other, with adhesions to the intestine, and of course I was obliged to close up the wound. The patient left the hospital in two or three weeks without any disturbance; in the other instance there was an infiltration toward the broad ligament so that I have never completed the operation, as I found infiltrations which I could not detect by the vaginal examination, very slight infiltration but I thought sufficient to forbid the operation and to force me to desist. However slight such infiltration is, I think that it is already too much for a successful operation. The uterus in those cases was perfectly free and movable, not very much enlarged, and yet there were those peculiar infiltrations spreading in each instance through adhesions which we could not detect by any examination. Of course a light adhesion to a fold of the omentum or a loop of intestine is not detected, the uterus is perfectly movable, there is not sufficient infiltration to cause any thickening which might be per-

ceptible by bimanual palpation, so that it made me look for cases in earlier stages and the doctor's is a remarkable instance of rapid development. In the stage which he first speaks of it would have been a most fortunate one, it seems to me, for operation, and yet we may have unhealthy tissue throughout. But how rare it is that we see a case in the early stages. We see from the reports of results of the operations, often the rapid recurrence which must of course be due to the fact that the infiltration had passed beyond the uterus and beyond that region accessible to the knife. I believe in the operation, and that it should be attempted more frequently; but the difficulty always is about seeing the cases in proper time. When we are positive about the condition it is generally too late, and what difficulty there is in determining the nature of the case in the early stages I have repeatedly seen. Not alone the macroscopic but the microscopic examination also is questionable. I have seen men of experience and whose judgment we might rely upon doubtful in these early cases, the microscope leaving it equally doubtful, and we have perhaps the best example at present of our uncertainty in relation to the diagnosis of cancer in the famous case of the Crown Prince, and that is not in the early stage. But if we can diagnose these cases in the early stage, I do believe that the operation is not alone justified, but indicated, because I believe that the patient can be freed of the disease.

Dr. McPheeters.—Then the difficulty is in getting the patient to submit to an operation.

Dr. Engelmann.—Exactly so. If the diagnosis is made at that early stage the patient as yet suffers no great difficulty; her health is not impaired; she may perhaps have pains, but not necessarily; she has very little discharge and perhaps no hemorrhage, and so why should she submit to an operation? That is the way she will argue. Then, again, there is a great difference in the feelings of patients in regard to the operation. Where the operation is frequently performed with success, as for instance at the hospital at Berlin, a patient knows, if she is told she has that disease, it can be removed successfully if she will only go in time. Here they know nothing about it, and the danger is far greater than where we can get the cases earlier. With regard to laparotomy, with regard to ovarian tumors—that is beginning to be appreciated here, but abroad it is so thoroughly appreciated that when the slightest growth is found they are ready to have it removed.

Dr. Boisliniere.—What are the chief points of difference between Freund's operation and Martin's?

Dr. Engelmann.—Freund was the first one who taught that it was possible to remove the uterus for cancer, and he operated by abdominal section. The operation was an extremely difficult one; very long needle, for instance, were necessary and sutures were passed through to the vagina, and from the vagina into the abdomen again, and almost all cases were fatal. It was Schroeder and Martin who, after their own experience with the Freund abdominal operation, resorted to the vaginal operation, which from the first has proved so much more successful, and, in fact, has given a very fair result, and the Freund operation has, I believe, been completely given up. I do not think it is resorted to for malignant growths of the uterus at all. It has the advantage that you will find such infiltrations as it was my peculiar fortune to discover, for instance, which cannot be diagnosed by the other method, but the operation is tedious and a difficult one. Then, too, the Freund operation was performed before the time of thorough antiseptic laparotomy, and possibly if it were attempted now the results would be very different. It was just before the time of thorough aseptic surgery, and the vaginal operation came in with successful aseptic surgery and proved successful, simply because it was done under more favorable auspices.

Dr. Prewitt.—To my mind a very unfavorable feature about this case is the rapidity of the growth. I believe it is almost an axiom in surgery that neoplasms which grow rapidly are most apt to return. Malignant growths that are rapidly developed infiltrate more readily, and in this case I should expect a return of the disease simply from the fact that it was rapid in its development. Now, as Dr. Hulbert says, the broad ligament on one side was already seemingly infiltrated; that might have been edematous possibly, but the presumption is that it was infiltrated, and that the infiltration extended beyond the line of perception, so far as the touch and sight are concerned, the very rapidity of the growth would indicate, I think. Many of these cases are comparatively slow in their development, and do not rapidly go beyond the uterine walls. I believe I reported a case of this sort a year or more ago in which the woman had evidently had this growth for some time, at least so long that her general health was bad, she ran down, looked haggard and distressed. I do not think she had been

aware of the fact that it was malignant or that anything especial was wrong. I removed the uterus and the woman recovered. I have heard from her recently; she has gained flesh, and is now remarkably well looking. In that case the growth had started from the uterine wall and there certainly seemed to be infiltration. In performing the operation I cut beyond that as far as I could into the right iliac region, and so far there has been no indication of return. As Dr. Engelmann says, the great difficulty in these cases is, in the first place, to meet them at a sufficiently early period. They do not present themselves for treatment, or if they do, they are unwilling to submit to an operation. I had brought to me recently a woman concerning whom the doctor said there was some thickening, induration, etc., about the posterior lip. I found the uterus hollowed out like a dome; you could look up into it; it was fixed in every direction, and there was a well advanced epithelial growth. Of course there was nothing to be done. But that treatment could have gone on for a great length of time without any body who had seen her knowing that she had cancer of the womb is surprising. Of course that is the case in a great many instances; they do not present themselves until it is too late to accomplish anything.

Dr. Coles.—What was the condition of the woman's health?

Dr. Hulbert.—I will simply state that she is only in fair condition, but up to the time that she was informed that she had a malignant growth which would necessitate an operation, and which would eventually result in her death if an operation was not performed—that this was her only chance to escape—she rapidly went to pieces. This was due to her mental rather than constitutional condition. She was worried to death, suffered with insomnia and everything else, and it told on her.

Dr. Boisliniere.—Was there much mobility of the uterus when you made the examination?

Dr. Hulbert.—The uterus could be moved within certain limits. There was no history of cancer in the family.

Dr. Boisliniere.—We have been taught that a certain mobility of the uterus should be ascertained before we attempt extirpation, because if the uterus is perfectly immovable it is supposed that infiltration has taken place, and this limits the sphere of operation.

Dr. Prewitt.—Did I understand you to say that mobility contra-indicates the operation?

Dr. Boisliniere.—No; I said that complete immobility has been thought a contra-indication, because it proves there is intense infiltration, but if there is infiltration with mobility that limits the sphere of the operation because of the infiltration, as if it is excessive the patient will die anyhow, the cancer being out of the pelvis, beyond it.

Dr. Papin.—I think, Mr. President, that Dr. Prewitt has given us the key-note of prognosis in neoplasms—whether rapid or slow in their development. The first case I saw was over twenty years ago; a woman who not only had a very large development of the epithelial growth in the neck of the womb, but who, constitutionally, was apparently very much affected by the hemorrhage she had undergone. The physician who was called to her was a quack. He did not examine her, but continually assured her that as soon as her courses stopped he would make an examination, and told her that it was not nice or clean to examine a woman during her courses. After this had continued for seven months at least, she was induced to call on me and ask my opinion of her case. Without asking leave, and while she was still talking to me, I made her open her knees and part her legs, and I ran my finger into the vagina and found an epithelial growth there as large as a turkey egg, attached to the posterior lip of the womb. Everything else seemed to be healthy except this growth. I told her that she could not possibly live under such conditions more than two or three weeks on account of the loss of blood and constitutional shock she had undergone, that the chances of her recovery if an operation was performed were very slim, nine chances out of ten she would die, I think I told her, and possibly she would die on the table, but it was her one chance. She said, very well you can perform the operation to-morrow morning. The next morning I removed the growth with an *écraseur*, involving nearly the entire posterior lip in the *écraseur*, and I succeeded in removing the entire mass; the tissue behind was perfectly healthy; the woman made a complete recovery and there was no recurrence. I think in all cases of this kind where I have used the curette the growth has been slow, never in the rapid growths which nearly always return. This patient is still in perfect health, and I operated about twenty years ago. A more recent case is one I operated on two years ago in which the patient came very near dying on the table through the injudicious use of chloroform. It was only with a great deal of difficulty that

we revived her. She recovered, however, and is now in perfect health.

Dr. Coles.—What operation did you perform on this patient two years ago?

Dr. Papin.—In that case I removed a portion of the neck of the womb, and about one-third of the body. There was little difficulty from hemorrhage, but a great deal from the chloroform.

Dr. Coles.—Did you use the curette?

Dr. Papin.—The curette was inefficient and I was obliged to use the knife.

Dr. McPheeters.—These cases do get well. Three years ago I curetted in a case which had been examined by several microscopists and pronounced epithelioma—I removed it and then applied fuming nitric acid, and there has been no return of the epithelioma. But it was in a very early stage.

Dr. Engelmann.—One case which illustrates how we may refer the cure to the curette where the diseases may possibly be limited itself, was that of a young lady whom I was called to see by her attendant in order to stop a hemorrhage. He had attempted hot water injections, and iron, and had been able to check it only temporarily. She was suffering fearfully. There was a dreadful condition of affairs. The cervix had been eaten away and seemed like a great funnel with loose dead tissue breaking away rapidly; the dressing forceps could be passed up into the uterine cavity which was partially occluded by dead tissue; there was profuse disagreeable discharge and profuse hemorrhage. Now I think that description conveys to us a very good picture of cancer. No microscopical examination was made because it appeared so evident. I saw that a curetting was necessary provided anything at all were to be done, and the free use of iron, but I did not think my efforts would be much more successful than those of her attendant. I told the husband plainly that I thought it was too late to derive much benefit from an operation; that by a harmless operation that would not endanger her life, the discharge might be stopped for a short time, but that would be all. Both he and she refused under these circumstances to have anything done, if no greater benefit could be expected from the operation, she preferring to let the disease go on as it was. So hot intra uterine injections were used to stop the bleeding, and I removed with a dull curette the dead tissues, and used iron freely, and the bleeding stopped. I saw her that once

only. Some months afterwards, perhaps six months, I saw her attendant and asked him if she was dead, and he told me that she was well, that the discharge had stopped, in fact he had not seen her for some months. A few years afterward I saw him, and he told me that she was perfectly well and had no trouble whatsoever. When I saw the case it had all the characteristics of cancer of the uterus. That is the only case of the kind that I ever saw, but Dr. Maughs told me that he had seen a similar case at the City Hospital. Now in another case of unquestioned cancer, where a microscopic examination was made, there was a free cutting away of a part of the growth with a knife and the curette was also used—a supra-vaginal operation of the cervix—from the anterior portion—this patient also recovered. I have seen cases benefited when there was presumed to be cancer—where even a microscopic examination left us in doubt. But in those cases where the cancer was positive, the curetting has rarely been satisfactory, however much of the healthy tissue was removed, however deep the operator may have gone into the healthy tissue. The case seems an exceptional one, and yet it does prove that if the patient will not consent to an operation for the removal of the entire growth, or if the disease has gone too far to admit of that, the curette should be used, because it at least makes the patient more comfortable; it does away with the offensive discharge and controls the hemorrhage for the time, and we may possibly cure the patient. Whether it was no cancer, or whether there was a limitation of the disease I do not know; but I do know that in three cases which appeared to be cancerous a free curetting and removal of the unhealthy tissue with the knife saved the patient, and I will say that one occurred ten years ago, one perhaps five and one three. But in most instances the disease has progressed rapidly.

Dr. Boisliniere.—What would you call those growths in which the patients recovered?

Dr. Engelmann.—I do not know. They were not examined by experienced microscopists, but I will say that there are cases in which even the most experienced are in doubt; but from what I saw of these cases I was inclined to think they were cancerous growths. In the rapid case to which I referred I will say it was not operated upon; it was merely treated, I may say, for the hemorrhage. In that case the patient's health had not been interfered with beyond the weakness from loss of blood. In another case the patient had

all the clinical appearances of cancer, her health failed, she had pain and failing health, everything going to indicate that she had cancer, and a microscopical examination proved that it was unquestionably cancer. An operation was performed, and after the operation the patient continued to fail for some three or four months; then she improved somewhat. The local disease never recurred at any time. Her general health seemed vacillating with some indications of a continuance of the disease in some other part, but there was no decided evidence of it at any particular point. She regained her health and the little of the uterus that remained has shrunk so that there is very little of it left. That was unquestionably a case of cancer.

In most instances the growth is rapid. Only recently I had a very striking case of the kind, which came to me in the very early stage; the growth was only about half the size of a walnut, upon the cervix just beginning to disintegrate. I told the patient the dangerous nature of the operation and the only alternative was the simpler operation of removal of the cervix, which I did not expect would afford her relief; but she declined to have the operation performed.

Dr. Boisliniere.—Cannot cancer be determined by a microscopical examination? Is there such a thing as a cancer cell?

Dr. Engelmann.—No! There is no such thing as a cancer cell; but the peculiar form of the tissue makes the cancer very characteristic, and it is totally different from any other morbid growth.

Dr. Prewitt.—I think cancer of the womb ought to be extirpated at the very earliest possible moment. I do not believe that temporizing measures are proper. It is my conviction that no cancer was ever cured by simple curetting. I do not believe the cancerous material can be removed by curetting. I do not believe it is possible to get out all the cancerous tissue; we may get down to what appears to be healthy tissue, but beyond that there is undoubtedly infiltration; to get beyond the infiltration you must cut into the healthy tissue and the curette will not do that; it will only go down to the strong tissue of the part. All these neoplasms are soft growths; they are soft material; they are easily scraped out, but when you get down to the more firm tissue you can not scrape out the muscular and fibrous tissue; you can not do that with a curette. There is always infiltration beyond the point of apparent deposit, and unless we get beyond that we can not be sure there will not be

a recurrence. So far as the cancer cell is concerned there is no such thing. I will say that surgeons nowadays limit the term cancer to growths of the epithelial type; no work on surgery speaks of sarcoma, for instance, as cancer; only those growths having as a distinctive feature the development of epithelial cells.

Dr. Coles.—A great deal of stress has been laid by most writers on cancer of the uterus upon the peculiar fetid discharge. Now while we all know that this is a characteristic which when we observe it goes far to complete the diagnosis, still at the same time I have seen cases when it was not present. I remember a case which I saw with Dr. Engelmann, a well marked cancer of the womb in which there was very profuse discharge, but none of the characteristic fetid odor that we sometimes meet with. Sometimes again we meet with the characteristic odor where the local lesion is apparently slight; where the disease has not progressed very far; that is to say where there is a breaking down of the tissue but at the same time there is no evidence of great infiltration, or where the disease has not extended to any great degree. I have a case in mind now to which I was called not long ago. The case has passed through the hands of various physicians, and they have all diagnosed cancer, and six months ago an operation was urged. I simply saw the patient twice, and told her husband that there was no chance for an operation. The bladder has already become involved, and the uterus is entirely fixed, just as much so as in an old case of chronic pelvic cellulitis. There is thorough infiltration of the cervix and neck with a breaking down of tissue, yet there is none of the peculiar odor. Now why this should be so it is difficult to say, but I do know that there are a good many cases that we meet with of the same kind, and as the text books lay especial stress upon this peculiarity of odor one might be deceived.

Dr. Hulbert.—I agree most heartily with the position taken in regard to the radical method of treating these growth of the uterus, and especially so when we see the case early. I do not think we are justified—I do not think the results attained in the partial operations can possibly justify us in resorting to that method of treating these cases; I think radical measures should be adopted. There is one more point I should like to call the attention of the members of the society to, that is in regard to the recurrence of this growth. While I feel that there was possibly some infiltration in this case, still I hope that there may be a complete destruction of the tissue

that is left there, provided I have got my ligatures beyond the infiltration. The knowledge and observation that we have in regard to the destiny of pedicles in ovarian tumors of to-day is much different from what was formerly held; it is well known that the distal portion of the pedicle in an ovarian tumor and in all tumors in which the pedicle is treated intra-peritoneally does not die—does not come away, but on account of the adhesions that are brought about, and the nourishment provided by the plastic material that is generated it retains its vitality. That same principle certainly would hold good in an operation of this kind provided the cavity was absolutely closed. By the use of the drainage tube the conditions are radically changed; the possibility exists that this tissue beyond the ligature will liquefy or die and come away, giving the patient a far better chance to become radically and entirely relieved from the infiltrated tissue that may exist there.

FORCEPS.

Dr. Engelmann.—Dr. Boisliniere asked me to bring that forceps, and I at the same time got out some of my old forceps, and I wish to show then to the society. This is one of the oldest forceps—that is the old Smellie forceps; that I think is the first after the Chamberlen forceps; this is the first Smellie forceps I present. It is very much like the Chamberlen; the next Smellie was merely a blade wrapped with leather; then the leather was left off altogether; then there is the next which I happen to have; that is an old German forceps, the D'Outrepoint forceps, which you see is the Smellie forceps elongated with some pelvic curve; then after this German forceps comes the Naegele forceps which has more of a pelvic curve, and has this excellent characteristic of many of the German forceps, the blades have a support for the fingers, which shows the development very prettily. We have the early Smellie, which is but little changed from the Chamberlen; then the elongation of the blades, the pelvic curve; afterwards the greater pelvic curve and the old Naegele forceps which is still the standard for all the models of the German forceps.

THE DISTRICT MEDICAL SOCIETY OF CENTRAL ILLINOIS will hold its annual meeting in Pana, Ill. Tuesday, April 24, 1888. The programme which has been issued gives promise of an exceedingly interesting meeting.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting February, 7, Dr. Glasgow in the Chair.

DIPHTHERIA CURE!!

Dr. Nelson presented an appliance which had been devised by a so-called "magnetic doctor and advertised all through the city as a sure cure for diphtheria. The manufacturer claimed that he had nine persons constantly employed in manufacturing these devices, and that he had made lots of money out of them. They are sold at \$2 a piece. The apparatus consists of a piece of red flannel, upon the under side of which is placed a piece of japanned cloth, and between these, is a horse shoe magnet. There is a strip of copper and a strip of zinc and a rivet connects these two—a piece of carbon and a piece of copper. The mode of application is by dipping it into vinegar and then binding it upon the chest; and it is said by the inventor that the use of it will surely exempt one from the danger of diphtheria.

Dr. Bauduy remarked that while the remarkable effects claimed from this particular appliance were not to be entertained for a moment, as it was manifestly simply a piece of quackery, there might be some beneficial effects from the use of galvanism in diphtheria. In such serious affections as sclerosis of the lateral and posterior columns of the cord, very decided benefit is experienced in some instances; and it is claimed that such cases have been cured by the catalytic effect of the continued galvanic current. A similar effect might be produced in this disease also.

ABSENCE OF CLAVICLES.

Dr. Todd stated that in the dissecting room had been found a subject without clavicles. Rudiments of the clavicle were attached to the acromion process and the sternum; but the intermediate part was entirely gone. There was nothing but a fibrous cord to represent the clavicle. The radius, fibula, and some other bones have in some cases been found absent; but he was a good deal surprised to find the clavicles absent. In the literature of the subject which he had been able to consult he had been unable to find any cases of the kind reported. Gegenbauer was the only one of several writers on anatomy who refers to such cases.

Dr. Fry asked if in this case the extremities of the bone were well developed.

Dr. Todd said they were hardly more than nodules. The patient had club feet, talipes varus, which apparently had been induced by walking with her toes turned in on account of an intra-capsular fracture of the hip.

Dr. Barclay mentioned that in reading somewhere, he had seen it stated that in some species of the cat tribe, the clavicles are simply rudimentary, while elsewhere throughout nature in the vertebrata we find the clavicle in some form or other strong enough for muscular effort as a lever, yet in this particular animal it is so weak as to be entirely useless for that purpose. It is placed there to follow out the type in nature. He thought it an interesting fact in comparative anatomy.

Dr. Fry said that several varieties of highly organized vertebrata have no clavicles, the bears, for instance.

Dr. Todd remarked that very few animals have clavicles. It is only those animals that use the anterior extremities as man does that have clavicles at all. The herbivora and carnivora, even the lion has none. The clavicle in the African lion is only an inch and a half or two inches long, and is imbedded in a mass of muscles of the neck. Of course in these animals the shoulders do not have to be kept apart. In birds where the pectoral muscles are very strong, the clavicles are enormous; in birds which have great power of flight the clavicles are ankylosed. It is only animals that use the front extremities for grasping that have clavicles. It was a very curious thing to meet with a case of an adult person without clavicles. It is one of the first bones to ossify in a human skeleton.

CONJUNCTIVITIS.

Dr. Wolfner read a paper on the usual method of treating acute conjunctival affections, with suggestions for the use of a new remedy, (Vid, p. 289).

Dr. Todd asked what *Dr. Wolfner* thinks is the exact cause of the improvement from the use of this new remedy; what its action

Dr. Wolfner answered that he could hardly state anything further than what he had said in his paper. He considered it simply an irritant; but a peculiar one. These other remedies act just the same way in cases of old granulations; but to sulphate of copper,

nitrate of silver, or other irritant, some of these cases seem to be very rebellious, and in spite of everything will continue; and it was in such cases that this remedy had done most good. He would class it with the irritants, but it seemed to possess some peculiar property.

NECROSIS OF SUPERIOR MAXILLA.

Dr. Tuholske said that some months ago he presented to the society a specimen of a superior maxillary bone, removed from a patient suffering from phosphorus necrosis. He then expected that there would be a great deal of deformity. He now brought the patient to the society for the purpose of permitting the members to see the condition of the patient. This young lady has a very useful mouth, with not a great deal of deformity. There is a slight falling in of the upper lip, but not such as we would expect in a case where so much of the bone had been removed. The greater part of the superior maxilla has been removed. When the patient first came to him the necrosis of the alveolar arch was thoroughly established. She was in a septic condition; absorption was taking place all the time, and her mouth was filled with purulent matter. He felt that it would not be judicious at once to perform an operation, because he did not know the limit of the necrotic process, or how much of the part to remove. So he raised the mucous membrane of the alveolar arch, washed out the part, kept it thoroughly disinfected and saw the girl from time to time, for a period of five or six months, during which time her general condition improved very much. He then found that he could take hold of the piece of bone and move it considerably. A week later he put her on the table, with the head down, without giving her an anesthetic and with a blunt director shoved back the tissue of the surface of the palate, and the horizontal portion of the bone; he then raised it in a similar way on both facial sides and twisted it out with his fingers. Bleeding from one of the palatine branches was controlled by compression with a pledget of cotton for three or four minutes. There was then very little to indicate that there would be any reproduction of bone; but the periosteal tissue had been swept away from the bone and obtained a very full connection with the other parts, and he left everything in place. It looked very much as if there would be an ugly cavity there; but the appearance of the patient now indicated very little deformity. And

he hopes there will still be considerable bone production. She has now almost a good alveolar arch, but she will not have any teeth in it however. A good amount of bone has been produced thus far, and has filled, to a considerable extent, the gap left when he removed the bone; and in time a plate of some kind can probably be fitted which will carry teeth. In the inferior maxilla it is the rule to wait for the reproduction of new bone, and a great deal is generally produced; but that is not the rule in the superior maxilla.

Dr. Todd said there seems to be a special provision of nature for the supply of blood to the superior maxillary bone, particularly the roof of the mouth. In syphilis it is common to have perforation of the soft and hard palate; and we have there a very strong arterial anastomosis, so that nature seems, as it were, to have anticipated injury to the bone, and to have provided a particularly ample supply of blood vessels, in case of injury or defects in the bone, so that if one artery is cut off, there will be other vessels to supply the parts with blood. He had now under his charge a case of congenital syphilis, where the nose had been attacked time and again. Just as soon as the boy gets under the influence of iodide of potash and iron tonic, granulations spring up very quickly, and it surprises him how soon the part is made good, the necrosed bone comes away and apparently everything is as well as ever.

Dr. Grindon asked if the inferior maxilla is not the bone most frequently attacked in phosphorus poisoning.

Dr. Tuholske said that the proportion is vastly in favor of the inferior maxillary.

Dr. Steele asked if any reason has been given why the maxillary bones are affected in preference to any others.

Dr. Tuholske said he didn't know why the inferior maxilla should be more frequently affected, unless because there are more bad teeth in the lower than the upper jaw. It has been claimed that phosphorus necrosis does not occur unless there are decayed teeth, along the roots of which the necrosis can take place. He had been told that girls who apply for work in match factories are required to have their teeth examined, and such as have decayed teeth are not employed.

Dr. Homan asked whether all the teeth were lost out of the jaw when he saw the girl.

Dr. Tuholske said when he saw her they were not. Three or four

on one side were still there, but they were loose and a number had fallen out.

POST-HEMIPLEGIC CHOREA.

Dr. Bauduy reported a very rare case, there being only two or three American cases on record. It was a case of post-hemiplegic chorea in a gentleman who at first had been seized by some epileptiform condition. He had well marked aberrations of consciousness, sensation, and involuntary motion, followed by well marked hemiplegia on the right side. This hemiplegia was persistent and absolute. There was also accompanying this an intermittent facial paralysis. After this condition with the disturbance of motility had lasted some months, there developed unexpectedly and suddenly (this is a characteristic feature in those cases) a chorea affecting the side previously paralyzed. The peculiar characteristics which manifested themselves—contrary to the course in cases, for instance, of incoordination of muscles or clonic spasms of the muscles as in locomotor ataxia—were the choreic movements which developed when the limb was at rest. These disturbances were much more aggravated, much plainer, when any voluntary deliberate motion was intended, such as carrying a tumbler of water to the lips, or attempting to take hold of any small object requiring nice muscular co-ordination; under those circumstances the choreic tremor was particularly marked. Another peculiarity, which is however mentioned by *Charcot* as not an infrequent involvement in these cases, is the development at about the same period as the production of the chorea, of a hemi-anesthesia, which occurs in hysterical subjects, coming to the median line of the body, the side which was choreic being the hemi-anesthetic side. And not only were the disturbances of sensibility which were clearly manifested very profound and very decided, but the special senses seemed to be also involved in the process. For instance, tickling of the nose or the application to the nostrils of very pungent substances, such as ammonia, would not produce sneezing or any evidence of reflex disturbance. Also the ticking of a watch was much less audible on the affected side; and taste was also very markedly diminished, the application of bitter, disagreeable substances, such as aloes, to the hemiplegic side of the tongue, was not perceived, whereas on the opposite side the taste was natural. There is also a form of chorea mentioned by *Charcot* which *Dr. Bauduy* said he himself had never witnessed, viz.

pre-hemiplegic chorea, the reverse of the condition just described and more exceptional than the post-hemiplegic state. Another feature in this case was also one which corresponds with the classical description of Charcot and Weir Mitchell, who was the first American author to notice the peculiar slowness of the pulse. This was the slowest pulse that he had ever felt. Of course retardation of the pulse is a common accompaniment of affections of the heart, as fatty degeneration of the heart, and atheromatous degeneration of the aortic valve. But Dr. Bauduy thinks it is much more common with cardiac affections in bulbar diseases, of the medulla oblongata, and fourth ventricle; and one can readily understand that probably the same pathological process, more a sclerosis, a hardening, than a softening, might have been found by minute investigation to have affected the bulbar region, as it certainly had involved the internal capsule. Charcot referred to this as an unusual accompaniment of the cases. He had not noticed that this retardation of the pulse, however, was also an accompaniment in cases in which there was a quite marked anatomical lesion, an atheromatous degeneration of some of the cerebral arteries, especially some of those in the neighborhood of the circle of Willis. Of course an atheromatous condition of the cerebral arteries would tend to still further complicate the case. Of course such cases are always invariably fatal, and they always accompany some serious lesion. It is not infrequently the case that this post-hemiplegic chorea will develop itself after hemiplegic paralysis has existed quite a number of years. The pathognomonic characteristic feature is the sudden supervention of the chorea upon the hemiplegia.

Dr. Fry regretted that inasmuch as Dr. Bauduy made a *post-mortem* he did not have an opportunity to make a careful examination of the internal capsule and the condition of the ganglia thereabouts; because that very point is just now of very considerable pathological interest. The etiology of chorea, as it occurs in children, is not by any means established, and pathology alone will establish it. The same may be said about athetosis, but in this case careful microscopic examinations of *post mortem* specimens, have gone largely to confirm the idea that in both of these conditions, *i. e.* in chorea and in athetosis, which are certainly allied, there is a lesion or lesions in the internal capsule and in the contiguous ganglia, particularly in the lenticular nucleus of the corpus striatum; and every case that can possibly throw any light on that question ought

to be examined if possible. Within the last year or two there have been more careful investigations of the pathological condition of this region than ever before, and certainly some advancement has been made in our knowledge of the pathology of chorea. Within a day or two he had seen a very interesting case of post choreic paralysis. The patient was one whom he had seen through several attacks, a girl about fourteen years old. She has had chorea for three successive springs including this one, and at this time there was less chorea than at either of the previous attacks; but immediately on the stopping of the choreic movements, there has developed a paralysis that is more extensive than he had seen following a case of chorea. One of her lower extremities is almost useless; she has some power in the other. The upper extremities—the arms—are both involved in this choreic condition.

In answer to questions from Dr. Bauduy he said there was no hemiplegia. It was originally a paraplegia—a paraparesis that later had involved the upper extremities. It was a case of post choreic paralysis as distinguished from a post hemiplegic chorea. Being asked of what duration was the paralysis; how long was the paralysis subsequent to the chorea, and has the chorea disappeared entirely, he said within a week after there was no more evidence of the chorea, the evidence of the paralysis developed. This was about the third week of the paralysis, and instead of improving it seemed to be developing further.

The choreic manifestations were not more particularly developed upon the side now paralyzed, the chorea seemed to be very generally distributed, though it seemed to have affected her lower extremities more than her upper extremities.

Dr. Bauduy said that the case was most interesting in the point of duration, because, while these cases are not infrequent, the records show that the duration of paralysis is usually quite temporary; and the cases described by Todd, Trousseau and others, but more particularly by Todd, have all pointed to the fact that the paralysis is of a temporary duration, sometimes not lasting much more than three or four days, and usually developing particularly upon the side which is most agitated by the convulsions during the preceding period. Where epilepsy is unilateral, where the convulsive developments are particularly marked on one side, as not unfrequently happens, we have hemiplegia, so-called, following the epileptic attack, just as we have a choreic hemiplegia after a wel

marked unilateral chorea—the hemorrhage developed is a subsequent consequence of the chorea, or exhaustion probably of nerve force on that particular side.

INFLUENCE OF FEAR ON VASO-MOTOR NERVES.

Dr. Mulhall mentioned a very queer nervous phenomenon, affecting the vaso-constrictors of the nose. Being about to operate with a galvano-caustic on a physician, his complaint being constant obstruction of the nostrils from an erection of the areolar tissue of the inferior turbinated bone, he examined the nostrils first, and found the erectile tissue of the right nostril so distended that it touched the septum. The gentleman was very much frightened, and when *Dr. Mulhall* introduced the speculum, he found that the distended areolar tissue had completely collapsed, so that the gentleman could breathe perfectly freely through the nostril. *Dr. Mulhall* had seen at least half a dozen cases before, in which, when about to operate for distended areolar tissue of the nostril, the erectile tissue had collapsed through the result of fear.

Dr. W. C. Glasgow referred to a paper in the July number of the *American Journal of the Medical Sciences*, an article on asthma, in which he cited a case exactly similar to the one related by *Dr. Mulhall*, showing the influence of fear in reducing swollen membranes. This was the first instance of the kind he had seen then, but since then he had quite frequently met with them. In cases where he was about to scarify, upon touching the part with the knife to make a puncture, the swelling disappeared.

VENTILATION.—The extra expense of warming the outer pure air in cold weather as it comes into rooms is with many people, an obstacle to ventilation. But these same people often think little of the extra cost of the higher priced foods with which to gratify their palate, when often they would be better with simpler, less expensive food. “Simpler food and purer air” might well be put up as a motto on their wall. It should be put up everywhere in the mind of men and of women too, in indelible letters, that the very last essential of life in which anyone should attempt to economize, should be the outer pure air. Expenses may be cut down in every other necessary much more safely, remember, and with less disadvantage than in this one.—*The Prophylactic*. Feb., 1888.

NOTES AND ITEMS.

THE GERMAN SOCIETY FOR INTERNAL MEDICINE will hold its seventh congress at Wiesbaden April, 9-12, '88,

THE MICHIGAN STATE MEDICAL SOCIETY will hold its twenty-third annual meeting in Detroit commencing June 14, 1888.

RUSH MEDICAL COLLEGE graduated one hundred and thirty-two students at its forty-fifth annual commencement February 21.

THE ST. LOUIS COLLEGE OF PHARMACY sent out a class of fifty-one graduates who received their diplomas on Wednesday, Mar. 14. 1888.

NEW ZEALAND MEDICAL JOURNAL.—Strange as it may seem a very creditable quarterly medical journal has been established in New Zealand.

THE MEMPHIS HOSPITAL MEDICAL COLLEGE will please accept thanks for a beautifully designed and elegantly executed card of invitation to thir commencement exercises.

MISSOURI CREMATORY.—We have received a very excellent photograph of the crematory newly erected by the Missouri Cremation Society upon their grounds in the southwestern part of the city. It is a very artistic and handsome building.

THE STATE MEDICAL SOCIETY OF ARKANSAS will hold its thirteenth annual session at Fort Smith Apr. 25, 26, and 27, 1888. An effort is being made to induce every regular physician in the state to indentify himself with this organization.

THE COLLEGE OF PHYSICIANS OF PHILADELPHIA has received a legacy amounting to over \$4100, left to it by the late Dr. Da Costa Alvarenga, of Lisbon. The Berlin Medical Society and the Society of Physicians of Vienna also received similar bequests from the same generous giver.

CORRECTION. In the March COURIER p. 235 in the account of the flies whose larvæ were removed from the nostrils of a patient our

reporter gave the description of the insect as having a *silver* colored face, whereas Dr. Todd really said that the fly had a *sulphur* colored face, a most important difference in the appearance.

THE MISSOURI STATE MEDICAL ASSOCIATION will be held April 17, 18 and 19 at Music Hall in Kansas City. The change in time has been made by the president and recording secretary after consultation with the committee of arrangements, in order that there may be no conflict with the meeting of the American Medical Association.

ST. LOUIS COLLEGE OF PHYSICIANS AND SURGEONS held its ninth annual commencement exercises in Memorial Hall Saturday evening, Feb. 2. Three *ad eundem* degrees were conferred. The graduates in the medical department were thirty-three, and there were also eight graduates of the dental department. The address on behalf of the faculty was made by Prof. Pinckney French.

THE ST. LOUIS MEDICAL COLLEGE held its forty-sixth annual commencement exercises at Memorial Hall on Thursday evening Mar. 8th, 1888. The graduating class numbered sixteen, all of whom had completed the full three years course required by this school, and the address on behalf of the faculty was delivered by Dr. Jno. Green. Music and flowers added to the enjoyment of the occasion.

SEVEN AMERICANS received the degree of Doctor of Medicine in Paris during the past year: two of the number were women. The whole number of foreigners receiving this degree in Paris during the years was forty-two, four being women.

The number of medical students of all nationalities in Paris during the year was over 3000, Vienna had 2178, Munich 1277, Berlin 1140.

MEHARRY MEDICAL COLLEGE.—The twelfth annual commencement exercises of this college, which provides a thorough medical education for colored young men, was held in the Grand Opera House at Nashville, Tenn. Feb. 20. The graduates in medicine numbered eighteen, and two graduates of the dental school of Central Tennessee College received their diplomas at the same time. Prof. E. L. Gregory delivered the address on behalf of the faculty.

THE LONDON MEDICAL RECORD heretofore published by Smith, Elder & Co. and edited by Ernest Hart, editor of the *British Medical Journal* has been discontinued by the publishers but we are

notified that W. H. Allen & Co. have assumed the publication with a slight change in its title. The *London Medical Recorder* will be the same in size and style as its predecessor and will have the same contributors, while the price is reduced one-third.

MISSOURI MEDICAL COLLEGE.—The fifty-seventh annual commencement of the Missouri Medical College was held Tuesday Mar. 6th 1888 at Entertainment Hall. The hall was well filled and the stage was decorated with plants and with the bouquets and floral devices sent to the young gentlemen graduates by their fair friends. Rev. P. G. Robert opened the exercises with prayer. Then the degree of Doctor of Medicine was conferred upon the members of the senior class who had passed satisfactory examinations, the number of these being seventy-five. The ad eundem degree was conferred on Dr. T. A. Martin. Next came the awarding of prizes, after which the valedictory address on behalf of the faculty was delivered by Prof. C. A. Todd.

THE FIRST CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS will be held in Washington on the evenings of Sept. 18, 19 and 20 of this year. The preliminary programme has just been issued, from which we learn that a discussion on Intestinal Obstruction in its Medical and Surgical Relations will be the feature of the first evening. Dr. Reginald H. Fitz, of Boston, and Nicholas Senn, of Milwaukee, will open the discussion. The second evening will be occupied with a discussion on Cerebral Localization in its Practical Relations, to be opened by Dr. Chas K. Mills, of Philadelphia and Roswell Park, of Buffalo.

On the third evening the president's address will be delivered by Dr. Jno. S. Billings; and this will be followed by a reception in the Army Medical Museum Building.

The several special societies constituting the Congress will hold their separate meetings during the mornings and afternoons of the same days.

NORTHWESTERN MEDICAL COLLEGE, ST. JOSEPH, MO.—The eight annual commencement exercises of the Northwestern Medical College took place at the Auditorium of the Y. M. C. A. building, February 23. The auditorium was well filled with a most intelligent and appreciative audience of St. Joseph's best citizens and from the neighboring towns and villages.

Back of the stage upon the wall in evergreen were the letters

N. W. M. C. On the stage sat the faculty and the members of the graduating class, the faculty on the left, and the class to the right.

Pryor's orchestra furnished the music.

Rev. J. C. Brown opened the exercises with prayer.

The first address was delivered by the class valedictorian T. C. Fenton.

Prof. O. B. Campbell delivered the address in behalf of the faculty.

Then followed an address by Hon. S. S. Shull.

Prof. F. A. Simmons, dean of the college, then awarded the diplomas.

The school had thirty-five students in regular attendance during the last course of lectures. The graduates numbered eleven.

After the exercises a banquet was given at the residence of Prof. J. A. French to professors, students and friends of the institution.

BEAUMONT MEDICAL COLLEGE.—This youngest of our St. Louis Medical Colleges held its third annual commencement exercises at Memorial Hall Tuesday evening Mar. 15th, 1888 at 8 o' clock. In the absence of Prof. Outten, dean of the faculty, Prof. R. M. King conferred diplomas upon the members of the graduating class numbering thirty-five. Prof. Walter Coles delivered the valedictory address in the name of the faculty. Ad eundem degrees were conferred upon Drs. J. B. Hungate and O. C. Reynolds.

On the evening preceding the commencement exercises the faculty gave a very pleasant entertainment to the members of the graduating class and invited friends in the form of a collation at the Lindell hotel, which was greatly enjoyed by all present, and for the courtesy of an invitation to which the editor of the *COURIER* is indebted to the faculty.

APPENDICITIS.—In our last issue in writing on the subject of inflammation of the vermiform appendix we quoted from a paper by Dr. Musser who took occasion in his discussion of the subject to speak with commendation of the word appendicitis as a name for this condition. Our own attention having been called by Professor C. E. Briggs to the barbarism involved in attaching a Greek affix *itis* to the Latin root *appendic* we wish to pass on with our emphatic endorsement the protest against the adoption into medical nomenclature of any such hybrid.

ST. LOUIS COURIER OF MEDICINE.

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No. 5.

ORIGINAL ARTICLES.

A BRIEF REVIEW OF SIX-THOUSAND SEVEN HUNDRED AND TWENTY-FOUR CASES OF SKIN DISEASE.

BY W. A. HARDAWAY, M. D., *Professor of Diseases of the Skin in the Missouri Medical College and the St. Louis Post-Graduate School of Medicine; Member of the American Dermatological Association.*

FOR a number of years past dermatologists have been in the habit of publishing lists and analyses of cases of skin disease for the purpose of furnishing trustworthy data from which conclusions might be drawn as regards the relative frequency, and other features of interest, of this important class of affections. In this way the profession has been placed in possession of a considerable body of facts, appertaining to cutaneous diseases as embodied in the reports of dermatologists both in the Old and New Worlds. Aside from a very cursory statistical paper published by me some ten years ago, and the annual reports that I have furnished to the American Dermatological Association from the second year of its organization, I believe that no study of skin diseases, based on a large number of figures, has been presented by any Western dermatologist; and it is with the object, therefore, of supplying this deficiency, and of affording an opportunity of judging of the character and frequency of dermato-

logical disorders in this part of the world, that I have prepared this paper.

In order that the scope of the inquiry may be properly appreciated, I shall take the liberty of making a few explanations of the plan I have pursued.

In the first place, I have tabulated only such cases as have occurred in my own practice. The majority of the patients were residents of St. Louis, but a certain proportion came from various places in Missouri and also from Illinois, Kansas, Arkansas, Texas, Iowa, Kentucky, Louisiana, Mississippi, Colorado, and New Mexico.

Secondly, I have purposely excluded the exanthemata.

Thirdly, as this paper is only preliminary to a fuller and more detailed consideration of the subject in the future, I have omitted certain details usually treated, and have endeavored merely to present broad and salient facts. For instance, I have omitted all reference to age and sex, and I have not discriminated between cases seen in public and those observed in private practice. More than one-half of the patients, however, were private cases; but in the body of the paper I shall call attention to the kinds of diseases most common in the one or the other service. I have prepared two tables, one showing the diseases arranged alphabetically, and the other arranged according to classes:

TABLE I.

DISEASES ALPHABETICALLY ARRANGED.

Acne, - - - - -	640	Lepra, - - - - -	1
Alopecia, - - - - -	82	Leucoderma, - - - - -	24
Alopecia areata, - - -	57	Lichen planus, - - - -	21
Anthrax, - - - - -	7	Lichen scrofulosus, - - -	1
Atrophia mac. et striat., -	1	Lupus erythematosus, - -	30
Atrophia pilorum propria, -	4	Lupus vulgaris, - - - -	58
Atrophia unguis, - - - -	1	Miliaria, - - - - -	49
Bromidrosis, - - - - -	12	Milium, - - - - -	40
Callositas, - - - - -	10	Molluscum epitheliale, - -	1
Canities, - - - - -	3	Morphea, - - - - -	3
Carcinoma, - - - - -	30	Myoma, - - - - -	1
Chloasma, - - - - -	65	Nevus pigmentosus, - - -	33
Cicatrix, - - - - -	10	Onychiauxis, - - - -	5
Clavus, - - - - -	1	Pediculosis, - - - - -	107
Comedo, - - - - -	57	Pemphigus, - - - - -	5

Cornu cutaneum, - - -	3	Phlegmona diffusa, - - -	3
Dermatalgia, - - -	3	Pityriasis mac. et cir., - -	10
Dermatitis calorica, - -	30	Pityriasis rubra, - - -	1
Dermatitis exfoliativa, - -	7	Prurigo, - - - - -	1
Dermatitis medicamentosa, -	11	Pruritus, - - - - -	171
Dermatitis venenata, - -	31	Psoriasis, - - - - -	205
Dysidrosis, - - - -	5	Purpura hemorrhagica, - -	2
Ecthyma, - - - -	40	Purpura simplex, - - -	41
Eczema, - - - -	2148	Rosacea, - - - - -	132
Elephantiasis, - - - -	5	Sarcoma, - - - - -	3
Erysipelas, - - - -	16	Scabies, - - - - -	154
Erythema multiforme, - -	57	Scrofuloderma, - - - -	19
Erythema nodosum, - - -	3	Sebaceous cyst, - - - -	9
Erythema simplex, - - -	51	Seborrhea, - - - - -	166
Fibroma, - - - -	21	Sudamen, - - - - -	10
Furunculus, - - - -	147	Sycosis (nonparasitica), -	15
Herpes progenitalis, - - -	27	Syphiloderma, - - - -	270
Herpes simplex, - - - -	4	Tinea favosa, - - - -	13
Herpes zoster, - - - -	106	Tinea versicolor, - - -	86
Hyperidrosis, - - - -	135	Tinea sycosis, - - - -	5
Hypertrichosis, - - - -	125	Tinea tonsurans, - - -	101
Ichthyosis, - - - -	16	Tinea circinata, - - -	66
Impetigo, - - - -	8	Ulcers, - - - - -	200
Impetigo contagiosa, - - -	37	Urticaria, - - - - -	110
Keloid, - - - -	12	Verruca, - - - - -	57
Keratosis pilaris, - - -	47	Xanthoma, - - - - -	11
Keratosis senilis, - - -	17	Xerosis, - - - - -	5
Lentigo, - - - -	41	Unclassified, - - - -	194
Total, - - - -	-	- - - -	6724.

TABLE II.—DISEASES, ARRANGED UNDER CLASSES.

CLASS I.—DISORDERS OF THE GLANDS—429—6.38 PER CENT.

Sweat Glands :

Bromidrosis, - - -	12	Sudamen, - - - -	10
Hyperidrosis, - - -	135		

Sebaceous Glands :

Comedo, - - - -	57	Sebaceous cyst, - - -	9
Milium, - - - -	40	Seborrhea, - - - -	166

CLASS II.—INFLAMMATIONS—3865—57.48 PER CENT.

Erythema simplex, - - -	51	Erythema multiforme, -	57
Erythema nodosum, - - -	3	Urticaria, - - - -	110
Dermatitis:		Erysipelas, - - - -	16
<i>a.</i> calorica, - - - -	30	Furunculus, - - - -	147
<i>b.</i> medicamentosa, - - -	11	Anthrax, - - - -	7

c. traumatica, - - -	27	Phlegmona diffusa, - - -	3
d. venenata, - - -	31	Herpes simplex, - - -	46
Herpes zoster, - - -	106	Herpes progenitalis, - - -	27
Psoriasis, - - -	205	Pityriasis mac. et circinata, -	10
Dermatitis exfoliativa, -	7	Pityriasis rubra, - - -	1
Lichen planus, - - -	21	Eczema, - - -	2148
Miliaria, - - -	49	Prurigo, - - -	1
Acne, - - -	640	Sycosis, - - -	15
Impetigo, - - -	8	Impetigo contagiosa, - - -	37
Ecthyma, - - -	40	Pemphigus, - - -	5
Dysidrosis, - - -	5	Lichen scrofulosus, - - -	1

CLASS III.—HEMORRHAGES.—43.—.639 PER CENT.

Purpura simplex, - - -	41	Purpura hemorrhagica, - - -	2
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CLASS IV.—HYPERTROPHIES.—566.—.841 PER CENT.

1. *Of Pigment :*

Lentigo, - - -	41	Chloasma, - - -	65
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2. *Of Epithelial and Papillary Layers :*

Keratosis pilaris, - - -	47	Keratosis senilis, - - -	17
Molluscum epitheliale, -	1	Callositas, - - -	10
Clavus, - - -	1	Cornu cutaneum, - - -	3
Verruca, - - -	57	Nevus pigmentosus, - - -	33
Xerosis, - - -	5	Ichthyosis, - - -	16
Onychauxis, - - -	5	Hypertrichosis, - - -	125

3. *Of Connective Tissue :*

Morphea, - - -	3	Elephantiasis, - - -	5
Rosacea, - - -	132		

CLASS V.—ATROPHIES.—172—2.55 PER CENT.

1. *Of Pigment:*

Leucoderma, - - -	24	Canities, - - -	3
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2. *Of Hair:*

Alopecia, - - -	82	Alopecia areata, - - -	57
Atrophia pilorum propria, -	4		

3. *Of Nail:*

Atrophia unguis, - - -	1		
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4. *Of Cutis:*

Atrophia maculosa et striata, -	1		
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CLASS VI—NEW GROWTHS.—549— .816 PER CENT.

1. *Of Connective Tissue:*

Keloid, - - -	10	Cicatrix, - - -	10
Fibroma, - - -	21	Xanthoma, - - -	11

2. Of Muscular Tissue:

Myoma, - - - - 1

3. Of Vessels:

Angioma,	-	-	-	84	Lupus erythematosus,	-	30
Lupus vulgaris,	-	-	-	58	Scrofuloderma,	-	19
Syphiloderma,	-	-	-	270	Lepa,	-	1
Carcinoma,	-	-	-	30	Sarcoma,	-	3

CLASS VII.—ULCERS.—200—2.97 PER CENT.

Ulcers (non-syphilitic), - 200

CLASS VIII.—NEUROSES.—174—2.58 PER CENT.

Hyperesthesia:

Pruritus, - - - - 171 Dermatalgia, - - - - 3

CLASS IX.—PARASITIC AFFECTIONS.—532—7.91 PER CENT.

1. Vegetable—4.03 per cent:

Tinea favosa,	-	-	-	13	Tinea versicolor,	-	86
Tinea trichophytina							
<i>a</i> , Circinata,	-	-	-	66	<i>c</i> , Sycosis,	-	5
<i>b</i> , Tonsurans,	-	-	-	101			

2. Animal—3.86 per cent:

Scabies, - - - - 154 Pediculosis, - - - - 107

UNCLASSIFIED, 194—2.88 per cent.

CLASS I.—DISORDERS OF THE GLANDS.—There are 429 affections represented under this division, being 6.38 per cent of the whole number tabulated. Most of these cases occurred in my private practice, as disorders of the glandular structures of the skin give rise to comparatively little physical discomfort, and appeal rather to the esthetic sense, and consequently such maladies are largely disregarded by the lower classes, while their relief is a matter of prime importance to persons of a higher social position. I find 135 cases of hyperidrosis recorded, which compared with other statistics is an unusually large number.

For example, Anderson observed but six instances in eleven thousand cases; Bulkley, twenty-seven in eight thousand; and White, only five in a total of five thousand patients suffering from skin diseases.

In addition to the usual causes of the disease it is probable that the high temperature of our summer months is to be cred-

ited with some influence as an etiological factor. Among the cases of bromidrosis, I met with one patient who exhaled a most decided odor of violets. The man was in otherwise good health, and this condition persisted for at least a month before disappearing. The majority of the seborrheal patients suffered from the form of the disease affecting the scalp, seborrhea sicca, or in popular parlance, dandruff. It is one of the fruitful sources of premature baldness. I have also noted very many cases of seborrhea of the body, called by the English, lichen marginatus, and recently by Unna, seborrheal eczema. The treatment *par excellence* for seborrhea is sulphur, locally applied; at the same time tonics and careful dieting are of the utmost value. The best way of getting rid of milia, is by electrolysis, as originally recommended by me. I have met with two cases of what may be termed giant milium, in which hundreds of tumors of the size of a pea and larger were scattered over the face, giving rise to a most unsightly state.

CLASS II.—INFLAMMATIONS.—Here we find, as was to be expected, the largest number of diseases, being a total of 3885, or 37.489 per cent of the whole. The protean malady eczema alone furnishes us with 2148 cases. Upon consulting the tables of other writers, I find the average percentage of eczema about the same for all.

In the combined returns of the American Dermatological Association for five years, the per cent of cases of eczema was 31.63 per cent; in Bulkley's table it is 33.48 per cent; and in mine it is 31.94 per cent.

The modern manner of regarding eczema as a multiform affection presenting several distinct varieties, and in this way including disorders that were formerly relegated to other classes, has greatly increased the number of cases falling under this designation. I may be pardoned one word regarding the vexed question of the real nature of the disease. While I cannot agree with a certain school of writers that look upon this disorder as a diathetic state depending upon a condition of system at one time called dartrous, at another rheumic or again gouty, I am as far from agreeing with those that regard it as a simple dermatitis, invariably due to local causes. Without going into details at

this time, I may state that my experience has taught me to see in the eczematous, a specially vulnerable and susceptible cutaneous system, and that under given conditions the disease may be evoked by any cause, external or internal, that will arouse this special susceptibility. For example, gout may be the *fons et origo mali* in one person, while in another a local irritant may evoke it. Once brought into existence, however, it runs a definite and thoroughly specialized course. The treatment of the disease is largely based upon these considerations: Under no circumstances have we any specific remedy against it, but in our therapeutics we must be guided by the local and general state of the patient and not by the name of his disease.

The principal varieties of eczema are named from the elementary lesion that predominates in a given case, thus we have E. erythematosum, E. papulosum, E. vesiculosum and E. pustulosum. I fully agree with Anderson and Piffard, that we should in addition, recognize E. fissum as one of the elementary forms of the disease. In many cases E. fissum, the *eczema fendille* of the French, is characterized "by a more or less reddened surface without vesicles, pustules or epithelial exfoliation, but presenting small cracks or fissures extending through the stratum corneum and sometimes through the stratum Malpighii as well." There is yet another form of E. fissum in which I am sure, there is no preliminary redness, but in which small areas of skin, particularly at the ends and sides of the fingers, become infiltrated and parchment like, sometimes with a central depression, and after a variable period crack through the thickness of the epidermis, giving rise to an exceedingly painful state of affairs. Great advances have been made in the local treatment of eczema of late years, and among the most notable, I must mention the fixed dressings introduced by Pick and Unna.

Most of the cases of erysipelas were mild facial cases; a few were of a severe type. The application that has proved most satisfactory in my hands, and which seemed to afford the speediest relief was composed as follows:

R	Ichthyol,	-	-	-	-	-	-	-	5j.
	Etheris,	-	-	-	-	-	-	-	5j.
	Collodii flex.,	-	-	-	-	-	-	-	5ij.

Sig. Apply with camel's hair brush.

I cannot now recall the name of the author of this formula. In the treatment of furuncle and carbuncle I have made large use of Unna's carbolic acid and mercury plaster, and with uniformly good results.

I have recognized a distinction between herpes simplex and herpes progenitalis, because I think the latter affection presents a sufficiently peculiar clinical picture to warrant this differentiation. Among the cases of herpes zoster I have notes of a case in which the disease recurred thrice. I may also mention an instance of what has recently been called chronic zoster. The patient was an old gentleman who suffered from constantly recurring vesicles, that made their appearance on both sides of the neck. The lesions were arranged just as in herpes zoster, and the subjective symptoms were similar.

I find 205 cases of psoriasis in the lists. Some years ago one of my clinical assistants published several cases of this disease observed in my dispensary service, in which scarlatina seemed to be the exciting cause. Since that time I have seen two other cases of psoriasis that appeared directly after attacks of scarlet fever. One of the dispensary patients presented the typical psoriasis rupioides of McCall Anderson. The case was as follows:

Mrs. G., aged 28 years. Two months before coming to the dispensary, the disease commenced rather suddenly with the ordinary papules of psoriasis. The eruption is seen to occupy pretty much the entire surface. The average size of the lesions is between a ten cent piece and a quarter of a dollar.

There are a few papules having the ordinary appearance, but on most of the lesions and especially those of medium size, the scales are of a dirty brownish color, and heaped up as in rupia; but around each patch is the usual red border. Removal of crusts reveals a punctiform bleeding surface, but there was no evidence of ulceration or pus formation. It was discovered that the mother of this patient, a woman of 65, was the subject of an ordinary *P. vulgaris*. Under treatment the *P. rupioides* got well; but three years afterward this patient returned with the same disease, and presenting the same rupioid features. I have seen only one case in which the psoriasis was observed

in the palms of the hands; it also existed in the usual situations. A few other features of interest in connection with this curious disease may be noted. The affection is not so uncommon in young children as has been presumed. I have met with at least ten cases in children under 12 years of age, the youngest child being in his sixth year.

I have also known psoriasis to develop for the first time at the age of sixty-eight. It is often the case that psoriasis is brought into existence by purely local irritations. This is probably the reason of its development after the inflammatory changes in the skin in scarlatina. Its favorite location on the elbows and knees is perhaps brought about in the same way. Psoriasis is sometimes stimulated into existence by a previous eczema. I remember the case of a child of 10 who had long suffered from an eczema of the right leg, and in whom a psoriasis developed in the site of the eczema upon the subsidence of the latter. Some months afterwards the disease made its appearance also on the elbows and knees.

Chrysarobin still occupies the first rank as a remedy for psoriasis, and combined with traumaticine, after the method of Auspitz, often acts with the greatest promptness and with a minimum of ill-results. In place of the white precipitate salve commonly employed for psoriasis of the face, I think I have secured better results from an ointment made of one dram of sulphur and one scruple of salicylic acid to the ounce of cold cream. This combination is also of value on the scalp. Of pityriasis maculata et circinata, first described in English by Duhring, I have noted ten examples. In my experience the affection is not so chronic in its course as has been stated, and I think that the cure may be considerably expedited by the application to the lesions of a pigment of salicylic acid in traumaticine.

Of the still but imperfectly understood condition provisionally called dermatitis exfoliativa, I have seen several characteristic instances. On my clinical books I have recorded two cases of infants having the well marked symptoms described by Ritter, and now called by his name. I really believe that in all likelihood exfoliative dermatitis so-called, pityriasis rubra, and pemphigus foliaceus are all varying degrees of the same pathological

state, but in conformity with usage I have set down only one patient as having typical pityriasis rubra, because this man presented all the classical symptoms of the disease as given in the text-books. I showed this patient frequently to my medical classes, and learned from him that he was a miner from one of the northwestern states, and that his trouble had first made its appearance as circumscribed rough and scaly patches some five years before he came to St. Louis to consult me. When he arrived here his condition was pitiable to the extreme. His whole body was involved in the process, was of a violaceous color and covered with the characteristic flaky scales, which shed by handfuls in his bed at night. The nails were softened and in a state of exfoliation.

The skin was not infiltrated nor did he complain especially of itching. His constitutional symptoms were severe. He could never get warm, and in the middle of summer would lie abed covered with heavy blankets. At times he suffered from sharp febrile attacks. No treatment was of any avail and he finally went to live, or probably die, in southern Kansas.

Among the cases of what may properly be termed dermatitis exfoliativa, I recall a patient sent to me by Dr. Ledlie of Pittsfield, Ill., who had frequent attacks of acute shedding of the skin. In some of these seizures he would have a chill, followed by high fever, and the rash which had begun at some local point would involve the whole body. After an attack in 1880 the nails of both hands and feet came away, and the hairs from his scalp and beard, as well as his eyebrows and eyelashes fell out. His first experience of this malady was in 1874, and he states that the longest interval between his attacks was eleven months; but more often the disease recurs every few months. I have by me now some specimens of his exfoliated epidermis, that are pieces the size of the palm. Another case of exfoliative dermatitis that I saw some years ago was limited to the left hand.

I have tabulated 21 cases of lichen planus, but of the variety known as *L. ruber*, I have not seen in St. Louis a single undoubted example.

I have also to mention one case of the true prurigo of Hebra,

that occurred in the person of a German child in my public service. I have to note one well-marked case of lichen serofoliosus.

Of the five cases of pemphigus one was a noteworthy example of *P. foliaceus*, of which very few instances have been reported in America. I have copious notes of the case, which I shall publish at some future time, but just at present I may state that the gentleman when I first saw him some eight years ago was 66 years of age and that his disease began, as is quite usual, upon the sternal region, and in the beginning looked not unlike an *E. rubrum*. Finally, however, the whole body from crown to sole was involved by the slowly but surely extending flaccid bullæ until the wretched man looked as if he had been dipped into a vat of boiling liquid. In the last stages of the disease, after the evolution of the bullæ had been gotten through with, there was no discernible difference in the red exfoliating skin between pemphigus foliaceus and pityriasis rubra. In fact I happened to have the man with pityriasis rubra under my care at the same time, and I was greatly struck by the resemblance, and indeed without the previous history of the bullous stage I doubt very much if the most acute diagnostician could have established the clinical distinction between the two. Less than a year ago this gentleman was still living, and as I learned from a relative, in about the same condition.

CLASS III.—HEMORRHAGES.—The hemorrhages into the skin number 43 cases or only .639 per cent. of the whole, some 13 of these patients had the curious affection known as purpura or peliosis rheumatica.

CLASS IV.—HYPERTROPHIES.—There are 566 examples of hypertrophic changes in one or the other structures of the skin. I have recorded 17 cases of keratosis senilis. This apparently trivial trouble is of so much importance that I wish particularly to call attention to it. Rohé's brief but adequate description may be quoted here. "In many elderly white persons of both sexes, small patches of thickened epidermis are found variously scattered upon the face, trunk and extremities. These plaques are usually in the shape of roundish or irregular, slightly elevated brownish or blackish collections. Sometimes they are dry and

hard or cornified, but oftener the patch is greasy to the touch, friable and easily scraped off with the nail, leaving a moist or reddened or slightly bleeding base." It is quite possible for this epithelial hyperplasia to become gradually transformed into a malignant new growth. In recent cases Rohé recommends an ointment of sulphur and salicylic acid after removal of the crust. I have obtained good results with salicylic acid plaster mull. If infiltration is at all pronounced the patch must be destroyed.

All of the cases of hypertrichosis or hirsuties, with one exception, occurred in private practice. It is scarcely necessary for me to reaffirm the value of electrolysis in the destruction of the hair papillæ.

I have classed rosacea among the hypertrophies rather than in the inflammations as acne rosacea, seeing that the acne is only a secondary phenomenon. I still confidently employ electrolysis for the varicose vessels, as originally recommended by me for all telangiectatic conditions. Among the local applications for well developed rosacea with acne, I know of no one remedy so good as the Vleminckx's solution, properly employed. Among the cases of pigmented nevi I have elsewhere described a case, and have since observed one other, in which the growths were confined to one side of the body, and followed the distribution of branches of the cerebro-spinal nerves. I have notes of three cases of morphea, but of no case of scleroderma, unless one feels inclined to look upon the former as a circumscribed form of the latter.

CLASS IV.—ATROPHIES.—There are 172 atrophic conditions tabulated. Under the title alopecia I have included all forms of baldness, except A. areata.

Of this latter affection, occurring mostly in private patients, I have records of 57 cases. I have never seen any reason to regard this disease as contagious or dependent upon a parasite. Two of my cases, notes of which I have published, suffered from periodical attacks of circumscribed loss of hair. I have seen four examples of what has been called malignant A. areata, that is, where there is universal loss of hair over the whole body and in all but one case no regrowth ever took place. In this

particular case, a boy of 14 years, persistent treatment was rewarded with recovery.

I have to mention one case of general atrophy of the cutis, that closely resembled, if indeed it was not a form of Kaposi's disease or xeroderma of Hebra. The patient was a blind man aged 23 years, of healthy parentage. He stated that he had a sister who was also blind, and suffered from this same skin disease. His cutaneous malady dates from infancy, and the affection of the eyes from the age of seven. His health was good, and his intellect clear. His face presented a r $\acute{o$ saceous appearance, the skin being thickened and reddened. There were scars around the mouth: the integument of the neck was pigmented in spots and reddened on the sides, where enlarged vessels were visible. The front of the trunk presented a shining checkered appearance, due to the alternation of many pigmented spots with atrophic macules. The entire skin was in fact atrophic and tense.

There were a number of cicatrices over the chest and abdomen, and the umbilicus was stretched until on a level with the skin. The appearance of the back was similar to that of the front of the body. No telangiectases were anywhere visible except on the neck. The skin and muscles of the hands were atrophied, and the fingers were webbed almost to their tips. The condition of the lower limbs resembled that of the upper. The hairs were scanty, perspiratory function poorly performed. Examination of the eyes showed xerosis of the conjunctivæ, corneal opacities, and adhesion of the lids to the globe. The mouth could be opened but a little way, owing to the contraction of the atrophic skin.

CLASS VI.—NEW GROWTHS.—Total of cases in this class 549, or 8.16 per cent of the entire number recorded.

Some time ago I published my observations on the treatment of keloid by electrolysis, of which I here note 12 examples. Within the year, Brocq, of Paris, has taken up my suggestion, and so far as he has gone is quite favorably impressed with my method. I do not care to speak further about the subject just now, as some of my cases are still under observation. In one very remarkable case of xanthoma, with unusual lesions and

also bone involvement, which I reported in full some time since, I have now to add that the xanthomatous process has entirely disappeared. The single interesting case of myoma has also been given to the medical press. I still follow my original suggestion for the treatment of angioma, especially the port wine variety, by electrolysis; and, so far as I know, there is no agent capable of taking its place. Small fibromata, particularly on the face, are also best removed by electrolysis.

Lupus erythematosus is a notably intractable disease, and any treatment that promises an occasional success must be welcomed.

In mild cases Duhring's lotion of sulphide of potassium and sulphate of zinc has worked well in my hands; electrolysis has also done well when the disease has been more advanced. I have also been well pleased with the action of salicylic acid plaster mull in several very chronic cases.

One of the cases of erythematous lupus which I shall shortly report in full, is an example of Kaposi's *L. erythematosus disseminatus et aggregatus*.

I am surprised that the tables show 58 cases of lupus vulgaris in a total of 6724 patients. I believe this is a larger percentage than will be found in other American statistics. At least 50 of these cases occurred in dispensary and hospital practice.

The leper came to my clinic at the St. Louis Post-Graduate School of Medicine, and the opportunity was taken of exhibiting him to the class. This patient is now under my treatment at the Quarantine hospital below the city. The following notes of the more prominent features of his case were made by my assistant, Dr. W. L. Blickhahn:

"C. T., Chinaman, aged 28. On the face, about the lower portion and side of the nose, the upper lip, below the nose, extending to the cheeks beneath the eye, an infiltrated, indurated, bluish-red discolored area is seen, with raised, irregular, tending to serpiginous, borders, ending abruptly with a more decided scarlet tinge in the margin. The infiltration of the lips extends to the mucous surface of the nose.

Edema of eyelids and some coryza present. A patch on each malar region, separate and distinct from the facial area just de-

scribed, is to be noted; but having the same raised wall-like border: this patch is spherical and appears depressed in the centre, which latter looks shiny and atrophic. On the right arm an irregular surface is involved; sharply defined; no appreciable thickening of the skin, slight desquamation. On the right hand and wrist—dorsal surface—induration is again to be observed, without desquamation, but the plaques are of a red color not unlike erythema multiforme. On outer side of right thigh, one inch above knee, an irregular palm-sized patch, slightly infiltrated and desquamating. Below the knee and above the ankle, two more areas, irregular in size, of a bluish red color, somewhat infiltrated and with raised borders. The outer side of the left leg almost entirely involved, presenting the same general appearances just described. A brownish tubercle was found over the right scapula, one on the back of the left arm, and also one, slightly ulcerated, on the scrotum. The ulnar nerve can be felt over a great part of its length as a thick firm cord; in fact may be picked up and rolled between the fingers. Pressure on it causes pain in the patient's fingers. The hands are almost useless from muscular atrophy, and are assuming the claw-like appearance seen in progressive muscular atrophy. The various eruptive lesions are markedly anesthetic, and on the arms and legs, even beyond the borders of the maculations, pins may be thrust deep into the skin without producing the slightest sensation in the patient."

CLASS VII.—ULCERS.—Although ulcers have been dropped as a distinct class from the scheme of classification adopted by the American Dermatological Association, and rightly so, since they are merely symptomatic of some preexisting pathological state, I have, as a matter of convenience retained the title, especially as in former years so many of the cases were entered on the books merely as ulcers, without further elucidation. The great majority of them were in dispensary practice, and were nearly all the common varicose or eczematous ulcer.

CLASS VIII.—NEUROSES.—There are recorded 171 cases of the functional disorder of the skin called pruritus. These were mostly private cases. Pruritus acknowledges a wide etiology, and therefore may be dependent upon a host of conditions, internal and

external, but among the most interesting factors in the production of this disorder is the influence of atmospheric states. Some years ago, Duhring called attention to the prevalence of a certain well-defined form of pruritus occurring in winter; and I am able to fully corroborate his statements. Regularly every year upon the advent of cold weather I see a number of people suffering from marked itching of the skin, which only abates, except as modified by treatment, upon the coming in of the warm season. Of late years we have heard much of a supposed contagious itching disease in the western states, variously, if not euphoniously, termed the "Prairie itch," the "Texas scratches," etc. I have received many dozens of letters from physicians regarding these cases, and in some instances I have been enabled to inspect them, and my conclusion is that instead of an epidemic cutaneous affection due to some well-defined and uniform cause, parasitic or otherwise, we have rather a complex of states made up largely of pruritus hiemalis, papular eczema and scabies.

As a matter of practical moment, I should think it would be well for physicians to remember that vaginal pruritus is sometimes associated with epithelioma of the cervix uteri, and that itching of the skin may complicate certain grave organic affections. I have hitherto called attention to the value of remedies, especially carbolic acid, in the form of spray for itching affections generally, and I wish to repeat my recommendation of this method.

CLASS IX.—PARASITIC AFFECTIONS.—I find that 532 or 7.91 per cent of the cases belong to the vegetable and animal parasitic disorders of the skin. Of these 4.03 per cent belong to the skin diseases produced by vegetable parasites, while 3.38 per cent were due to one or another kind of animal parasite. Among the cases of ringworm of the body, two of the patients suffered from the acute and universal form of the disease called by Kaposi *tinea tonsurans maculosa*. The so-called *eczema marginatum* or *tinea circinata cruris* was comparatively rare, and in no instance particularly obstinate.

There has been a marked increase in the number of cases of favus in recent years. The 13 instances of the disease recorded

all occurred in dispensary practice, and were in persons for the most part born in Europe, and who brought the disease with them. Scabies has also markedly increased in frequency during the past few years. Ten years ago it was not uncommon for me to pass a twelve month without seeing a single case. Phthiriasis while tolerably frequent in public practice, certainly is not so often met with among our poor people as seems to be the case in the East.

UNCLASSIFIED.—Under this head are placed cases in which no diagnosis was established or such cases as were insusceptible of being satisfactorily classified. Of examples of skin disease falling under this latter category I could furnish very many interesting details, if this paper had not already reached undue length, and besides the histories of many of these cases have already been published in various journals, as for example, instances of Addison's disease, Papilloma cutis, etc. The science of dermatology is constantly advancing, while the ability to form systems of classification that shall keep pace with this advance is lacking. Indeed, as Sieving has well said, making classifications of skin diseases is a very interesting, but not a very practical occupation. On the other hand a proper and uniform nomenclature is of the utmost importance. In conclusion, I wish to express my obligations to Dr. M. J. Epstein, for his valuable assistance in the preparation of the statistical tables contained in this paper.

WHAT IS THE LEGITIMATE SCOPE OF GYNECOLOGY?—A REJOINDER TO DR. WALTER COLES.

BY C. H. HUGHES, M. D., ST. LOUIS.

UNDER this caption Prof. Walter Coles recently read before the St. Louis Obstetrical and Gynecological Society a paper which appeared in the January, 1888, number of this journal.

In that paper my esteemed gynecological friend animadverts

upon a previous contribution of mine in the following terms :

"Dr. C. H. Hughes * * * has contributed several articles to the *Weekly Medical Review* upon what he styles 'oophorectomic destruction.' In the issue of this journal, June 25, 1887, under the title of 'The Ovaries Saved,' the doctor publishes a letter from a medical friend, who offers a substitute for oophorectomy. The writer details at length a pretended operation in which he had taken part ; the patient being etherized, and while under the influence of the anesthetic, the skin of the abdomen was 'pinched,' a little blood poured out, 'from a bottle,' and dressings applied. The patient was placed under the care of a trained nurse, and shown an 'old but re-baptized' tumor, and told that this was the fruit of the 'operation.' We are also informed that this patient made a good recovery, and 'still has her ovaries and confidence in the doctors.'

"I will only remark that the name of the physician who perpetrated this clever piece of charlatanry was generously withheld by Dr. Hughes, when he unfortunately substituted an anonymous communication for an argument, a substitute, by the way, which lacks even the merit of originality, for, as Hegar remarks, this is an old trick, which has signally failed to secure either relief to the patient or credit to the doctor.

"It is to be regretted that such worthy gentlemen should have been led into extravagant and derisive criticism of a large class of their brethren in the profession."

The perpetrator of this "clever piece of charlatanry" whose "name was generously withheld by Dr. Hughes," was a leading gynecologist of the United States ; and I honor him for having saved the woman's ovaries from needless and useless sacrifice. This is not the only instance in which conservative gynecology and gynecologists have saved women from needless oophorectomy. Here are two instances in the practice of Dr. Goodell :

A patient with excessive ovarian pain, with terrible dysmenorrhea, and reduced to skin and bone. She had been bed-ridden for two years, and was unable to sleep or eat. I suggested to her physician, who accompanied her, that it would be best, in the first place, to relieve the stenosis and cure the dysmenorrhea. The left

ovary was also lower than normal. There was, however, no history of pelvic peritonitis, or of organic disease of the ovary. The constant congestion was sufficient to account for displacement of the ovary. The decision was that she was placed under my care, and she came to this city. I dilated the cervix, and put her on the "rest treatment," with massage and electricity. At the next period, the dysmenorrhea was excessive, for the uterus had not recovered from the bruises produced by the operation. The next period was better, and after this she continued to improve, and before long began to walk. Last week I received from her husband a most grateful letter. In these cases the symptoms point so distinctly to the ovaries as the seat of the disease that unless you are on your guard you will be deceived. Any woman subjected to great mental trouble, is liable to manifest symptoms referable to the ovaries.

A young girl, for six months, nursed her father, who was suffering with cancer of the lip. After his death she broke down, and presented very exciting symptoms of uterine and ovarian trouble. She came to me to have a good diagnosis made by her physician reversed. He had told her that the whole trouble was due to nervous prostration, and I fully confirmed his opinion. Sometimes I err on the conservative side, yet all these cases are, in a measure, improved by the "rest treatment," and, if necessary, the operation can be performed subsequently.

And here is another from Dr. Emmett.

Shortly after October 1, I admitted into my private hospital a woman about thirty-five years of age who had given birth to several children, nearly all of whom were born by unusually rapid labors. She had got up very slowly after the last labor, and the symptoms were clearly given of the existence of some pelvic inflammation for long afterward. After having devoted more than five years to receiving local treatment, and after many efforts had been made to fit a pessary, she became a confirmed invalid from her inability to get about. At my first examination I found a doubly lacerated cervix presenting just within the vaginal outlet, which latter was unusually relaxed and open. There existed an exaggerated prolapse of both vaginal walls, and the dark color of the mucous membrane showed clearly that there was a marked

venous congestion throughout the pelvis. There was a small fibroid on the posterior wall of the retroverted uterus, and below it lay both ovaries very much enlarged, with a small mass on each side of them, which seemed to be the fimbriated extremity of the Fallopian tube. Every portion of the pelvis within reach of the finger was tender on pressure, but no distinct inflammatory product could be detected except in the region of the utero-sacral ligaments. The sensation conveyed to the finger was as if the pelvis was filled with air along the sides of the vaginal walls. As the patient lay on her back it was impossible to reduce the uterus, and as one portion of the vagina was pushed up it only caused some other parts to roll out. The knee-and-chest position gave her great relief, the uterus easily returned to its place, the vagina dilated to its ordinary size, and in a few moments after her assuming this position the mucous membrane regained its natural color. Her general health was good, and she was free from suffering so long as she maintained the recumbent position. But on assuming the upright one she suffered from nausea and felt "as if she would drop to pieces." For several years she had had the hot water vaginal injections properly administered. These at first gave her relief, but for a long time there had been no apparent benefit, and they were finally abandoned as the space in the vagina lessened.

At my first examination the case seemed so hopeless that I gave it as my opinion that it would be necessary to remove the ovaries. She positively declined submitting to the operation, as she had done before in consulting others. In twenty-four hours I satisfied myself that no good could be accomplished by attempting to fit a pessary. From necessity she had acquired some dexterity in the introduction of damp cotton into the vagina to give her some support when she was obliged to be about, but it often proved a source of irritation. I placed her in the knee-and-chest position and introduced a Sims' speculum. The instrument, however, proved unnecessary, as the vaginal outlet in this position became sufficiently patulous to allow of the examination of the whole canal without it. I had determined to use the tampon, but before placing it I thoroughly smeared the whole vaginal surface with vaseline. After the parts had regained their normal color, I proceeded to fill, but not to pack, the vagina with dry cotton, the fibers of which I had previously separated as much as possible with my fingers. In a short time I had to remove it in consequence of the

pain produced, and I had the same result a few days later when I attempted to repeat the experiment. * * *

At my next attempt with the patient in the knee-and chest position, so as to get the ovaries out of the way, I introduced only enough cotton to enable me, with the pressure of my finger over it, to keep them from prolapsing as she turned over to her back. I then proceeded to pack the vagina to a moderate degree. This tampon she retained comfortably for two days with the greatest relief, and from that time to the present she has continued to improve. I daily packed the vagina, and the ovaries gradually became smaller, until at length they no longer presented themselves, and for several weeks they have been beyond the reach of my finger. At the end of two months and a half I discarded the use of the tampon, after having gradually lessened the quantity. I was then able to fit a pessary, which has answered every purpose, and which keeps the uterus moderately anteverted, notwithstanding the small fibroid on the posterior wall. The puffy or air-like condition along the sides of the pelvis has disappeared, and the vagina is not now unusually enlarged. The uterus has decreased in size, the laceration in the cervix is of less depth, and, as there are no reflex symptoms, an operation for its repair will not be necessary. But she can not possibly become a well woman until she has had the operation for restoring the integrity of the pelvic floor. With the pessary she is able to walk a mile and more with comfort. The pessary which I have found applicable for her case is an elastic rubber ring which I procured in London. Its diameter is three or four times that of a similar instrument made in this country, and the increased thickness is a great advantage. The broad surface cannot cut into the tissues, and its size is just sufficient to dispose of any slack in the pelvic fascia.—*N. Y. Med. Jour.*, Feb. 18, 1888.

Here is a case which to an experienced gynecologist seemed hopeless unless the ovaries were removed which, nevertheless, under the determined protest of the patient and the persistent employment of other gynecological resources, improves so that the patient can walk a mile or more with comfort. The only operation yet insisted upon is one for "restoring the integrity of the pelvic floor."

Here is a case where even gynecology relents because the patient will not consent, and finally completes, or could complete, a cure by pure gynecological methods without oophorectomy as was at first thought to be an imperative necessity.

Dr. Coles seems to regard the salvation of the ovaries as something with which neurology has no right to meddle ; but will he object to this orthodox gynecological salvation ?

But there are more ovaries yet to be saved, and though the missionaries of neurological medicine have pioneered this doctrine of salvation in the wilderness, its coming evangelists are to be among the gynecologists themselves. An *apostle* has arisen who will bring conviction even to the gynecological multitude, and the sin of oophorectomy, and some other gynecological sins, will be forsaken, and both neurologist and gynecologist will exult in the salvation of our woman from needless surgery. The teaching of Apostoli in regard to uterine fibroids has been accepted by Keith, senior and junior, Playfair and others.

Here is a recent record :

An Edinburgh correspondent writes that Keith accepts the teachings of Apostoli. Keith and son in less than five months have applied electricity in strong and accurately measured doses more than 1,200 times upon more than 100 patients, the majority being cases of uterine fibroids. The labor of these operations was very great, but it opens out a study which increases daily in interest. Several cases came to them for hysterectomy in uterine fibroids. After treatment by Apostoli's method,¹ these women have all gone home without operation, with menstruation almost normal and improving after their return. In every case the tumor was reduced in size, the pain gone, and they enjoyed the freedom to walk about and life itself in a way to which they had long been strangers. In one case

¹This is called Apostoli's method, but since Legros and Onimus, neurotherapeutist have seen ovarian and other tumors disappear under judicious electrization without number. I have myself seen them shrivel and pass away more than once, and that not under an electrolytic process of from one to two hundred milliamperes, but under milder anodyne galvanization of twenty to forty-five milliampere meters. I do not believe violent electrolysis is essential when adequate time and patience can be taken to promote the gradual but, as I believe, inevitable dissolution or shrivelling of tumors.

only has there been a return of hemorrhage. The tumor had gone down two thirds, and unwilling to detain her longer in town she was permitted to go home too soon. Should these improvements be permanent, and he has every assurance from the experience of Apostoli that they will be, the field of hysterectomy is reduced to the narrowest possible limits. He would consider himself guilty of a criminal act, were he to advise his patient to run the risk of her life before giving this treatment a fair trial. Dr. Playfair has been experimenting industriously on this subject since his return from the summer holidays. He is not quite decided concerning it in all respects, but does not hesitate to declare it a therapeutic measure of much power and considerable promise. I doubt, however, if it will fulfil Apostoli's enthusiastic estimates. He has found it very valuable in membranous dysmenorrhea and chronic endometritis, with glairy glutinous discharges. One or two of his cases have been quite remarkable, and have yielded to two or three applications. Playfair has had one remarkable case of rapid absorption of a large fibro-myoma under negative electro-puncture. The case had been under his observation for years; by the application of currents of 100, 150 and 200 milliamperes, it has been reduced from the size of a large human head to that of a small orange. There was, however, considerable pyemic and constitutional disturbance which at one time caused considerable anxiety. —*Phil. Med. Times*, March 15, 1888.

Dr. Coles strikes back at neurology for having dared to say that nervous diseases were too often treated as uterine by gynecology, by comparing the needless uterine examinations and touchings of the os to the "painful routine of faradization for hyperemia of the brain, when all he (the patient) needs is to throw physic to the dogs and go fishing." I do not know of a neurologist who habitually employs painful faradization, or faradization at all, to the head in cerebral hyperemia.

Dr. Coles says truly that "such is the wonderful progress in all departments of medicine that the man who loiters or sleeps by the wayside, soon finds himself lost in a maze of new ideas."

One of these amazing new ideas is the salvation of the ovaries of many of our woman, by recognizing and treating her neural disorders that simulate organic ovarian disease.

Another, though it is a quarter of a century old, is in recognizing what the physiologists, Legros and Onimus, taught about leucorrhea, viz., that it could be best cured by controlling through electricity the pelvic circulation.

Another, and the latest and best rediscovery, was that by a gynecologist, the renowned Apostoli,¹ and is that certain morbid uterine growths may be destroyed by electricity with more safety to woman than by the knife. By gynecology was told this before Apostoli, but it is more acceptable when a gynecologist, and not a neurologist says it.

If I were to answer the question of Dr. Coles' article, I would say the legitimate scope of gynecology is to cure woman of those diseases that implicate or derange her gynecic functions, and that to accomplish this, neurological suggestion as well as surgical should be welcome, that electrical as well as mechanical aid should be accepted, and that all medical means of relief should find acceptance as legitimate gynecological practice, whether first proposed by neurologists or not. Woman is neurotic as well as gynecic in her morbid states. Her diseases are even more often neural or neural and gynecic than gynecic alone.

The neurologist probably understands woman better to-day than the gynecologist who ignores the light of neurology upon her peculiar diseases.

Her sexual system may at certain times exert a "preponderating influence, but it is through her neural mechanism that it does so ; and to treat woman wisely requires "a refinement of judgment in weighing psychical and physical, including her neural symptoms; and in the language of Dr. Coles, it is "but the simple truth that comparatively few in the profession are naturally fitted for the work," of properly treating woman and her diseases, of justly estimating her many and organically inter-related morbid states—uterine, neural, neuro-vascular and neuro-psychical.

But, as Dr. Coles says, gynecology is, in most respects, a

¹Engelmann, in our city, has also been working in this direction for some time.

new department of medical science which has developed into life within the present generation." When it gets older it will not rail at the friendly criticisms of neurology, but modify its practice according to the light thrown upon its pathway from every source. "The deep and abiding principles of pathology are developed slowly, the errors of one generation often serve as beacon lights to its successor; one fallacy after another gives way to earnest study and patient investigation."

When gynecology shall have become more mature the following criticism of Albutt will be no longer applicable. Indeed, it is hardly so now with most gynecologists of repute with whom I am acquainted.

"How intimately this organ, or this system, is associated with the nervous system is well known; but, unfortunately, our knowledge all leans one way—it leans to a curious and busy search for every local ill which may arise in the female pelvis, while blind oblivion scatters the poppy over every outer evil which in its turn might hurt the uterus: nay, more, a resolute prejudice would deny that in the woman any distress can arise which owes not its origin to these mischievous parts. *L'uterus c'est la femme* is a proverb which has received a new development in these days; for if by courtesy, rather than conviction, woman be granted the possession of a few subsidiary organs, these, at best, have no prerogative nor any order of their own.

"The uterus has its maladies of local causation, its maladies of nervous causation, and its maladies of mixed causation, as other organs have; and to assume, as is constantly assumed, that all uterine neuroses, or even all general neuroses in women, are due to coarse changes in the womb itself is as dull as to suppose that the stomach can never be the seat of pain except it be the seat of some local affection, or that the face can never be the seat of *tic-douloureux* unless there be decayed teeth in the jaw. All mucous membranes, indeed, seem readily to betray nervous suffering by relaxation or changed secretion; and I make no doubt whatever that a very large number of uterine disorders which are elevated to the place and name of diseases of the uterine system are but manifestations of neuroses. All neuroses are commoner in women than in men. Facial neural-

gia is commoner in them, migraine is commoner ; so is gastralgia again and the pseudo-angina. Not only so, but in the uterus they possess one organ the more, with its own rich nervous connections, and its own chapter of added diseases and neuroses ; but to say that all these maladies are due primarily to uterine vagaries, is to talk wide of all analogies. * * *

“A neuralgic woman seems to be peculiarly unfortunate. However bitter and repeated may be her visceral neuralgias, she is either told she is hysterical or that it is all uterus. In the first place she is comparatively fortunate, for she is only slighted ; in the second case she is entangled in the net of the gynecologist, who finds her uterus, like her nose, is a little on one side ; or, again, like that organ, is running a little, or it is as flabby as her biceps: so that the unhappy viscus is impaled upon a stem, or perched upon a prop, or is painted with carbolic acid every week in the year except during the long vacation when the gynecologist is grouse-shooting, or salmon-catching, or leading the fashion in the Upper Engadine. Her mind thus fastened to a more or less nasty mystery becomes newly apprehensive and physically introspective, and the morbid chains are riveted more strongly than ever. Arraign the uterus, and you fix in the woman the arrow of hypochondria, it may be for life. —‘Visceral Neuroses,’ pp. 15, 16 and 17.”

I may say, in conclusion, that I have a far more exalted opinion of the sphere and mission of gynecology than to regard it as essential to its existence that the vagina of woman should be made a perpetual tool chest or toy box for pessaries, divulsion machinery and all sorts of mechanical and medical contrivances, or that her genitalia and generative machinery should be made the sole point of attack in every effort at cure of woman's diseases.

Since Eve enticed our common father, Adam, in the garden of Eden his male descendants have been prone to get too often and to stay too long in woman's vagina. Modern gynecology has spent too much and too exclusive time in searching for the cause of all of woman's pathological woes in this direction and in none other.

It is high time that gynecological vision was extended beyond

the scope of the speculum in the study of woman's diseases; and it is even now given a wider and longer scope by all but the narrowest minds in this department of work and study. If it were not so, it were far better for woman that the speculum had still laid buried out of sight amid the undiscovered ruins of Pompeii.

That I may not be misunderstood, let me say in hasty conclusion that I regard legitimate and broad gynecology as one of the grandest of the specialties, but its greatness and its glory is in its breadth and not in its narrowness. Practitioners in gynecology are as necessary to the welfare of woman as those in neurology or ophthalmology are to the sanitary interests of either sex.

I do not condemn oophorectomy where it is necessary, or any other capital gynecological surgical procedure, when it is justified as a *dernier ressort* for woman's sanitary salvation.

I do not condemn the legitimate use of the vagina for all proper and timely surgical purposes. Talliaferro may and does tampon it well, but he may do it too often and too soon, as Emmett proves, and Emmett's own hot water treatment may be abused, as Emmett himself gives proof. But I would hesitate as long, and think as deliberately, before unsexing a woman as I would before adopting a procedure that might emasculate a brother man.

Save clitoridectomy and the slitting of the os which were so popular, and frequently done a few years ago, and oophorectomy, which is still overdone, few other gynecological procedures have not a legitimate place in cautious hands.

It is not the work of the discreet and thoughtful masters that society has to fear, but the danger is from that legion of little imitators of the great, who are great only in reckless temerity. With a thirst for operative notoriety, and willing to achieve it, regardless of the moral precept of the golden rule which should guide us all, they mistake notoriety and the number of cutting cases they may secure for fame; whereas, the true and lasting fame of every great surgeon is in the conservation of the human anatomy. The profession honors Marion Sims for what he saved to woman. He discovered a fact and a real remedy.

Keith and Tate are not condemned but applauded, and if Baker Brown had considered more and cut less, the really good work he did would not now have been covered by the mantle of oblivion, or remembered only to be condemned with clitoridectomy, as needless, unconservative butchery.

There is no study that can interest a physician, even a neurologist, more than that of legitimate gynecology. No men in medicine are worthy of more honor than the true gynecologist, but to be a gynecologist one must be broad—broader than a woman's pelvis, deeper than her vagina—in his range of mental vision. A true gynecologist is, of necessity, a great man. The diligent study and work required in this department requires and develops greatness if it brings fitness for the field of work to the student. In the practice of gynecology peri-uterine, extra-uterine, direct, distant and intra-uterine difficulties present for study. A narrow medical mind can not work wisely, or profitably to the patient, in this department. Hence when the neurologist encounters a real broad gynecologist, he perceives in him the highest type of the great physician, and esteems him accordingly.

PROTRACTED ACTION OF THE HEART AFTER APPARENT STILLBIRTH IN PARTIAL PLACENTA PREVIA.

BY EUG. C. GEHRUNG, M. D.

[*Read before the St. Louis Obstetrical and Gynecological Society, Mar. 22, '88.*]

NOVEMBER 15, 1887, I received a message to meet Dr. —

On my arrival the doctor told me that the patient, a multipara, was in labor since early in the morning and had with a head presentation, placenta previa partialis; that she was bleeding all day and, that now, 8 o'clock P. M., the labor pains, after constantly growing weaker, had ceased altogether about two hours ago.

The patient, though of good physique, appeared anemic and exhausted from loss of blood and the fruitless labor pains. During a short consultation we decided to deliver immediately by version. I met with inconsiderable difficulty in introducing my left hand by the side of the right laterally implanted placenta, and, after rupturing the membranes high up, in catching and bringing down the feet. Despite all precautions the funis prolapsed, but the delivery was so rapidly effected that there was no cause to regret the prolapse.

Since there were little or no pains to assist in the delivery, I had some misgivings in regard to the rapid delivery of the after-coming head, but, bringing into use a manœuvre which I had the honor to describe to this society several years ago; I was somewhat surprised myself at the facility and rapidity with which it was effected.

The pulsations having ceased in the umbilical cord, this was ligated and severed at once. The separation and removal of the afterbirth occupied but a short space of time, and was followed immediately by an almost complete arrest of the hemorrhage. I shall, however, not enlarge on the care bestowed on the mother, who as I was afterward informed, made a rapid and perfect recovery, as the interest in the case centres on the child.

The child, a male, was apparently stillborn. Immediately after separation from the mother, it was placed in a hot water bath, and the throat and mouth cleared by the finger, which seemed to be superfluous, as there was not the customary mucus present. The child's appearance was not that of cyanosis but of an extreme state of bloodlessness. Immediately Schultze's method of artificial respiration was practised, sometimes alternated with Sylvester's, flagellations, titillations of the larynx and pharynx, repeated immersions in hot water alternated with dashes of cold water. Mouth to mouth insufflation under the usual precautions was also practised, but like all the other means was of no avail. No effort at respiration was made by the child, nor was there at any time a sign of existing life observable, though from the birth to fully three-quarters of an hour afterward, the heart was not only distinctly felt to beat, but the palpitations of this organ could be distinctly seen even from a

distance of several feet by all the bystanders. When, despite all our efforts, the heart slowly ceased its convulsive jerks and came to a complete standstill, the child's appearance was that of a statue of marble, so white and bloodless was its surface. Not a single macula of cyanosis was visible anywhere. While practising the aforementioned efforts at resuscitation I asked the doctor to hand me a catheter to be introduced into the larynx for direct insufflation into the lungs, but the doctor objected on the ground that too much valuable time would be lost in effecting the introduction, and that in the relaxed state of the child the air would escape by the side of the instrument.

So the only untried means for resuscitation was this. Whether it would have met with a better result than the other means cannot be answered by this experience, and, though I considered at the time the doctor's objection a valid one, I nevertheless regret that it has been omitted. Yet, had it been used with no better result, the regret would have been for having neglected the doctor's advice, that of not losing valuable time. Indeed, it appears that any and every means would have been useless, as the child was probably to all intents and purposes *stillborn*.

This case in my opinion is another plea for early delivery in cases of hemorrhage and especially with placenta previa. Delivery, if possible, should be effected as soon as possible and before the mother and child are completely exsanguinated and the former exhausted. Could delivery have been accomplished an hour or two sooner, the child would probably have lived.

That the return of the heart's action after stillbirth is not always a sure sign of returning life, is here clearly demonstrated.

This case shows that without respiration and in a state of exsanguination the heart may continue to act as long as three-quarters of an hour.

What was the cause of this phenomenon?

Was it the reluctance of animal functions to cease, even after almost total exsanguination? Or, because of it? Or, was it that a part of the respiratory centres contained a sufficient supply of blood yet, to keep the heart at work? Or, was it a cardiac phenomenon exclusively?

According to all appearance there was not enough blood left

in the child to sustain life, even if our efforts at resuscitation had been successful.

What should be done in similar cases?

I shall venture to make some suggestions.

1. Since all the means that have been tried have so signally failed, I should certainly in a future case of this nature place my first reliance on the means omitted in this case, namely the catheter introduced into the larynx, through which the lungs may be filled with warm air, to be expelled again by compression of the thorax, and the process repeated at usual rate of respiration.

2. If I should have recourse again to Schultze's method, I would not, as the author directs, hold the child perpendicularly between my knees, and swing the lower extremities upon the abdomen, while the body is placed in a horizontal position, but, on the contrary I would start by a horizontal position; and, by bringing the head downward let the lower extremities double on the abdomen in the inverted perpendicular position, so as to make all the remaining blood gravitate toward the nerve centres, by keeping the head constantly below the level of the body. By the inversion of the body the mucus possibly contained in the air passages will be made to flow out through the mouth and nose. (Several cases were related by the reader in illustration of these remarks.)

3. Transfusion naturally suggests itself, but in a child so young and so bloodless, even if everything were ready for its performance, it would be very difficult, if not impossible, to find a vein.

In ordinary stillbirths from delay in labor, compression of the funis etc., where the nerve centres are filled with venous blood, the heart's action is usually the first to cease and on arterialization of the blood the first to return,—the first symptom of returning life.

May I venture to say that the diminished blood supply and that sufficiently arterialized was the probable cause of the continued convulsions of the heart, even after the possibility of revivification of the other organs was lost beyond redemption, as may be seen among the lower animals?

I should like to learn whether any of the members present have met with or heard of similar cases and whether their efforts were crowned with better success than mine, and, if so by what means was the success obtained?

2215 Olive street.

INSANE VERDICTS OF INSANITY.—One of the great matters in which the ancient cruelty of the law and the sickly sentiment of modern society have combined to establish false excuses and false defences for criminals, is the matter of irresponsible insanity. Dailey, whose murder of the venerable Mr. Kennedy, last summer, in front of the Treasury Building in Washington, was one of the most wanton and atrocious on record, was acquitted the other day on the ground of insanity, and now boasts of his success in fooling the jury. To begin with, the most pronounced irresponsibility ought not to excuse a homicide from perpetual restraint, any more than a dangerous brute. A lunatic who has once killed a man, even when apparently restored to sanity, should be treated as dangerous, kept under limits and surveillance, and put back into an asylum at the first symptom of recurring aberration. But the crying necessity is for a new and rational definition of irresponsible insanity. The statutes should clearly instruct juries, first, that every man is to be presumed sane, and that irresponsibility must be proved beyond a reasonable doubt, before it can be admitted in excuse of crime; second, that nothing less than absolute unconsciousness of what one is doing, or of the nature of the act (as in extreme idiocy or hallucination), can be admitted as a state of irresponsibility; and, third, that such unconsciousness itself, when produced by passion, can be admitted only in mitigation of the crime by one degree. Better still, however, the plea of insanity should be excluded from the jury entirely, unless certified in accordance with the above principles by a special jury of experts.—*Sanitary Era*, Feb. 15.

THE PROPHYLACTIC is the new name of the journal which has been published for several years at Toronto and Ottawa in the Dominion of Canada under the name of the *Canada Health Journal*. *The Prophylactic* will be published in New York under the same editorial direction as heretofore, viz., that of Dr. Edward Playter.

EDITORIAL.

RESPONSIBILITY OF PHYSICIANS AND LAYMEN TO THE PUBLIC AS REGARDS INFECTIOUS DISEASES.

In the *Journal of the A. M. A.*, March 17, we notice an editorial with the title, "Public Health *vs.* Public Wealth," in which the editor very effectively contrasts the vigorous measures which are immediately adopted when it is known or even suspected that a cow has died of pleuro-pneumonia, with the shilly-shally, temporizing, ineffective procedures when it is found that children or adults have died of some preventable disease. He says, referring to the death of three children in Chicago in one family from diphtheria in the early part of February: "It does not appear that the family was quarantined, nor that any investigation was made of the origin of this outbreak of diphtheria. Beyond the family left childless no thought seems to have been given to the fact that three children have been carried off by a preventable disease."

Discussing further the matter of compulsory notification of infectious diseases, he says: "It is probably the case in every city in which there is compulsory notification, and certainly *is* the case in Chicago, that physicians are influenced *not* to report infectious diseases by interested parties. It is not long since a physician (an irregular) was called to see a child sick with measles in a certain hotel in Chicago. He was called by the advice of the proprietor, and was influenced by the proprietor not to report the case, though at the time there was a number of small children in the hotel. The matter was, as far as possible, kept a profound secret in the hotel.

This is one way in which unthinking, careless, ignorant people, aided by legal physicians, toy with human life."

He goes on to say that if the disease had been small-pox instead of measles, the stake for the hotel proprietor would have been so much the higher, as the popular dread of small-pox is so much greater than that of measles. He concludes with the following words: "The punishment for the concealment of infectious disease by a householder, and for non-notification by a physician should be so severe that such things will be unprofitable in the extreme."

We have referred to this subject in order to call attention to another point in which it seems to us that there is criminal carelessness on the part of both the laity and of some members of the profession, viz., in permitting persons suffering from contagious diseases to travel in public conveyances.

A couple of instances will illustrate and enforce our thought. A few weeks ago a young man, a member of a prominent theatrical troupe then playing in the city, had been ailing for several days, though not confined to his bed or room. On consulting a physician he was informed that he had measles, and left the same evening for his home in New York. Whether this was by the advice or with the consent of the physician we are not informed, but certainly a young man of rather more than average intelligence showed a criminal disregard of responsibility to the public in starting off in the condition in which he then was (the eruption already appearing upon the face), having one of the most readily transmitted of the infectious diseases, to take a journey of a thousand miles in public conveyances in which he was almost certain to expose some of those with whom he would necessarily come in contact in the ordinary contingencies of travel, to say nothing of the equally certain infection of bedding in the sleeping car which would thereby become a source of danger to any susceptible child or adult who might occupy the same section for an indefinite period thereafter.

In this particular case there was an element of personal recklessness and foolhardiness which has no direct bearing upon the subject under discussion, but would possibly discount to some extent our intimation that the young man was above the average in intelligence. The evening on which he started upon this journey was that of the day when the morning papers were filled with the reports of the terrible blizzard in New York state, when all travel was arrested, and there was every reason to expect, as he was told before starting, that it would be impossible for the train to go on to its destination. Whether he lived through the dangers to which he so recklessly exposed himself we are not informed; nor is there any possibility of ascertaining how much of disease or even of death may come to other households by reason of his wicked folly.

Another case which occurred a few months ago was the following: A wealthy and intelligent gentleman and wife, residing in St. Louis, were visiting in an eastern city, when one of their children became ill. A physician was called in, and pronounced the disease to be scarlet fever. These highly intelligent people took the next train for St. Louis with their sick child, and by their reckless, selfish disregard of the rights of the public, exposed to this fearful disease every other child in the cars in which they traveled, and not only that, but children who should travel in the same cars for an indefinite period afterward.

Would it be too much to claim that a person who in his own person, or in the person of a child, thus carries into a public conveyance the virus of a disease which may thereby be imparted to another, has just as flagrantly violated the law which forbids taking the life of another, as does the man who recklessly handles firearms in a crowd, and should be held responsible for the results of his act when traceable to him, both in civil suit for damages and in criminal prosecution for manslaughter, as surely in the one case as in the other?

THE OTHER SIDE.—THE RESPONSIBILITY OF THE
PUBLIC TO THE INDIVIDUAL AS REGARDS
INFECTIOUS DISEASES.

But there is another side to this matter. Take the case of the Chicago hotel proprietor who induced the physician to suppress the fact of the child having measles, or that of the young actor in the St. Louis hotel who started for New York when he learned that he himself had measles. Did not the landlord know that if it became known that a child was ill with that disease in the house there would be a general scattering of his patrons, and that all or nearly all of the families then boarding there would seek accommodations elsewhere? Did not the young actor know that if it became known that he was suffering from an infectious disease he would no longer be a welcome visitor at the hostelry where he was abiding, or that he might be peremptorily notified that he could no longer be accommodated there and must seek quarters some where else? So with the parents who brought upon the railroad from an eastern city their child already ill with scarlet fever; if they were visiting a family in which there were other children, is it likely that they would be welcomed to prolong their visit, and so expose the children of their host to serious illness? Or, if they were in a boarding house or hotel, would or should they be permitted by tarrying there to expose to danger of this disease other children who might be there, too?

But what shall they do? The case cited by Dr. Tuholske two weeks ago illustrates well the difficulties of solving that question. It may seem a simple matter at first to say "They should go to some place where there are no children to be exposed." Well! where for instance? As was found by Dr. Tuholske's patients, in all this large city no one wanted scarlet fever boarders. To have a sign posted upon the door, "Scarlet Fever in this House," is enough to destroy the value of even a more thoroughly established and more surely profitable business than that of most boarding

houses, and private families who take one or two "for company," or "because the house is a little too large," would not think for a moment of taking in those sick with scarlet fever, or other infectious diseases.

But one might say, "How stupid! Take them to one of the hospitals, of course." Yes! Let's see! At St. Luke's we find the regulations provide that no contagious or infectious diseases shall be received. At the Protestant Hospital "No contagious or infectious diseases are treated." So at the Good Samaritan, St. John's, St. Louis Mullanphy, The Alexian Brothers, and at all the institutions, of whatever name and under whatever auspices, whether they receive and treat the sick "for sweet charity's sake," or for material compensation in lawful coin of the realm, no provision is made for treating these diseases, and they are not received for treatment; and in our public institutions also, no adequate provision is made for the reception of patients suffering from any of these contagious and infectious diseases except small-pox, in reality the least dangerous of all, inasmuch as we have in vaccination a thorough protection against this disease.

With regard to our quarantine (small-pox) hospital it is pleasant to have the assurance that the provision made for the care of patients there is all that could be asked for, that patients who have been there give most satisfactory testimony as to their treatment.

Furthermore, in one of the spasmodic efforts at sanitary work which have characterized the St. Louis Health Department, at one of the brief periods when the municipal assembly granted to the Board of Health a moderately liberal allowance of funds for its work, an arrangement was made by which comfortable rooms were furnished with competent nursing and medical attendance and board for patients ill with diphtheria, and the mothers of the sick children were urged to come there with the sick ones, thus protecting from exposure other members of the family, and providing for the sick ones the mother's loving care.

Some such provision should be made at public expense for the

best of care and treatment for those ill of scarlet fever, measles and diphtheria, as is now done for those with small-pox.

No more urgent appeal can be pressed upon the heart and purses of a philanthropic public than might be urged for funds to provide and maintain a special hospital for cases of these diseases.

Not until by public taxation or by individual generosity such provision is made in all large centres will the public be in a position to exact of the individual such a pecuniary and penal obligation for exposure of the public as then should be enforced most strenuously.

PULMONARY CONSUMPTION. DETTWEILER'S
METHOD AND THE ANILINE TREATMENT.
FEMALE DRESS AS A DETERMINING
FACTOR.

We have noted from time to time different modes of treating this fell disease, which carries to an untimely grave so many of our fellow mortals. The treatment by gaseous enemata, which was introduced by M. Bergeon some months ago, was tried by numerous physicians all over the world; and the general consensus of opinion now is, that while some of the distressing symptoms of consumption are palliated by this treatment, the progress of the disease is not arrested nor stayed thereby.

In the *New York Medical Journal* Feb. 18, there is a paper by Dr. Paul H. Kretzschmar, of Brooklyn, appealing for the establishment in this country of one or more institutions for the rational treatment of pulmonary consumption, after the model of Dr. P. Dettweiler's sanitarium at Falkenstein.

The principles of Dettweiler's method of treating pulmonary consumption are the liberal use of pure mountain air, the administration of a rich, liberal, and peculiarly adapted mode of diet, the very free use of milk, the general but well controlled use of

alcohol, and the adoption of such climatic, balneological or therapeutic agents including the use of compressed or rarefied air, massage, and the douche—as each case for itself may indicate. The following particulars respecting this method of treatment are of great interest.

The sanitarium in Falkenstein, was founded in 1874 by a stock company—the shareholders not to receive more than five per cent dividend on their investment, the surplus income to be used for the improvement of the institution, and, later on, for the establishment of similar places for the treatment of the poorer classes. It is situated on the southern slope of the Taunus mountains, about 1400 feet above the sea level, near Cronsberg, about two hours ride from Frankfort. It consists of three large buildings, together with gas-works, cow-stables, laundry, etc. The largest of the buildings presents the form of a horseshoe, to protect the inhabitants from the rather heavy north winds that prevail there occasionally, and contains eighty rooms with over one hundred beds, and the post and telegraph offices, parlors, reading-rooms, billiard-room, office, examination-room, and the douche in the basement. The next building, connected with the others by an arcade, contains the large, high, and well-ventilated dining-room, which seats about two hundred people comfortably, the kitchen being outside the building. The third building contains the residences of the medical superintendent and his associates.

The climate of Falkenstein is not alleged to have any specific influence on the disease; it does not differ in any essential part from that of southern Germany in general, except that during July and August the temperature is quite high. The air is comparatively free from dust and other impurities. Well cultivated pine and oak forests are in the immediate neighborhood, with numerous attractive walks winding through them, and with plenty of seats and places for rest. One of the points which Dettweiler considers as of the greatest importance in obtaining favorable results is the treatment of phthical patients within institutions,

where they are constantly under the personal supervision of the attending physician. The medical profession of Germany approve of this view, and the institutions established in Germany on this basis have already made a good showing. In all these institutions the smallest details of the patient's life are controlled by the supervising physician: the daily exercise in the open air, the use of lung-gymnastics, the administration of stimulants, even the changing of garments, are matters not left to the judgment of the patients.

In connection with other phthiseo-therapeutics, Dettweiler praises the invigorating influence of pure mountain air and its great value as a remedial agent in the treatment of consumption, but he insists on the necessity of caution in outdoor exercise. New patients are not permitted to walk outside of the immediate vicinity, or even to remain outdoors for a long time, until after the first careful examination, generally made the day after arrival; then the limit of outdoor exercise is agreed upon, also the hours of rest in the open air, and the first instruction in lung-gymnastics is given. Under ordinary conditions the duration of outdoor living is increased daily and the greatest importance is placed in "resting" in the open air. Over ninety *chaises-longues*—lounges made up of rattan and upholstered with horse-hair—are placed on the verandas, the arcade, and the rotating pavilions, and the patients after being acclimated, spend many hours daily—dressed properly, and covered with blankets in accordance with the season—lying upon them. Great importance is placed in this "permanent air-treatment," and it is carried out during the coldest weather, while snow and ice cover the surrounding ground. During the winter before last, which was an exceptionally cold one, a daily record was kept, and it was found that some of the convalescing and more energetic patients extended the so-called *jour medical* to ten and eleven hours: many of the advanced cases spent at least two or three hours on their lounges. Only in exceptional cases—in highly anemic subjects, and those suffering from continuous and decided fever with frequent

c hills—is the permanent air-treatment not indicated. Six hours is the average time spent on the lounge; many remain there until ten o'clock at night, passing the time reading or writing, playing dominoes or chess, the verandas and pavilions being well lighted after dark. The good results obtained by this permanent air treatment are immunity against the unfavorable influences of sudden changes of temperature, diminished cough, increased appetite, and lessened fever.

Another feature of this treatment, supposed to strengthen the system and harden it against unfavorable external influences, is the systematic use of massage and the regular daily rubbing down of patients, early in the morning and before rising, by trained nurses' first by means of dry towels, afterwards with alcohol, and occasionally with salt-water. The cold douche is added in most cases to the other invigorating measures.

Much attention is paid to diet. Dettweiler considers anorexia next to pyrexia, the most important factor in destroying the life of phthysical patients. All the delicacies of the season are provided, and much attention is paid to the individual wants of each case. As a rule, the patients take their meals together, one physician being always with them, and the time for meals is thus arranged: First breakfast, consisting of coffee, tea, chocolate, or milk, with cakes or rolls, and butter and honey, from 7 to 8.30 A. M.. Second breakfast, bread and butter, with milk, always as much as desired, or bouillon and cold meat, at 10 A. M. Dinner, the principal meal, consisting of soup, fish, broiled meat or roast, with a variety of vegetables, salad and compote and desert, at 1 P. M. With the dinner, each patient drinks from one-third to one-half a bottle of Rhine or Hungarian wine and a cup of coffee. At 4 o'clock P. M., an additional lunch to those that require it of fresh milk, and a nice little room is arranged for this purpose in the cow-stable. Lastly, a warm supper is provided of soup, warm and cold dishes, of meat, etc., at 7 P. M., with a glass of wine. Instructions are given to eat slowly and chew well; milk, especially, must be taken only a swal-

low at a time. The food is well prepared and cooked rather rich, and the manner of cooking is often changed. Dettweiler himself directs the management of the kitchen. He says that few of the patients do not enjoy the meals at Falkenstein, and 86 per cent of all patients gain an average of nine pounds each during a period of less than three months, while 14 per cent do not increase in weight. The free use of alcohol is also a feature of Dettweiler's treatment. He says that he would give one half of the entire materia medica for this one remedy. The phthisical patient with a fair appetite and free from fever does not require more than three-fourths to one bottle of good Rhine wine a day: if, however, anemia be a prominent symptom, with occasional chills, he orders the "brandy treatment," two teaspoonfuls of pure brandy, to be taken every hour or two from morning till night, amounting to eighty grammes a day, to be followed by a brandy milk-punch before retiring.

The laws of hygiene are strictly enforced; the patients sleep with their windows open during the night, fresh water is at hand, the greatest cleanliness prevails, the drainage is the best, and cuspidores are at hand filled with a solution of bichloride of mercury, to receive the expectoration of the patients. The average attendance during the last year has been 160 in the summer, and 120 in the winter. The expenses, including service, milk, douche, bath, and medical attendance, amount to not over twelve marks or three dollars a day. Dr. Dettweiler has lately published a pamphlet relating to the permanent cure of seventy-two cases of pulmonary consumption by his "permanent air and rest treatment," with the administration of such a liberal and rich diet as to amount almost to over-feeding.

Among the special remedies to which attention has lately been directed in the treatment of this disease is aniline. In the *London Medical Record*, Jan., 1888, Dr. P. Bertalero writes on Aniline in the Treatment of Tuberculosis.

In very weak solutions aniline kills the tubercle-bacillus, and

these weak solutions are harmless to the human organism. Bertalero has obtained very striking results with this treatment, and in this paper gives his experience as shown in eight carefully selected cases. Of these, four were in the first stage of the disease, three at the beginning of the last stage, and the eighth had apparently but a few weeks to live. All had a family history of phthisis. The aniline was given internally and by inhalations in Siegel's steam spray. After a few weeks of treatment the condition of the patient markedly improved, the fever, night-sweats, and cough being much diminished; the sputa became less purulent and contained very few bacilli; the weight also of the patients increased. He concludes from the result of treatment in these cases that in aniline we have a remedy of great power in pulmonary and intestinal tuberculosis; that in the first stages of the disease its action is certain; that in daily doses of 50 to 60 centigrammes internally and of $1\frac{1}{2}$ grammes by inhalation it is innocuous to the human organisms, and may be continued without interruption for months. He, however, recommends its occasional suspension, so that the organism shall not become accustomed to the remedy. To render the aniline more soluble in water, and consequently more easily assimilable, a few drops of alcohol should be added to it.

If given for a long time, the skin may become stained bluish-yellow, but this discoloration soon disappears if the remedy is suspended.

An interesting contribution with regard to the etiology of this disease is found in the *Medical News* in a paper entitled Female Dress as a Determining Factor in Pulmonary Consumption.

Thomas J. Mays, of Philadelphia says it is the current opinion that pulmonary consumption is more prevalent amongst females than males, and this view would seem to be borne out by a consideration of their habits and surroundings which involve causes that are known to predispose to this disease; but a careful study of the mortality statistics, based on the reports of health-boards, etc., and cases treated in hospitals and from private prac-

tice, show conclusively that although a larger number of females than of males die of phthisis, the proportionate death rate from consumption is less among the female than among the male population. This difference can hardly be the result of fortuitous circumstances, but is rather dependent on a cause which is as regular as it is and which is in a great measure inherent in the functional difference that obtains in the breathing of the two sexes. It is well known that the respiration in the male is chiefly diaphragmatic or abdominal, while in the female it is costal; and that this difference is an acquired one, is shown by an investigation of the chest movements of Indian girls whose breathing was found to be identical with that of civilized man. That this change of type of respiration has been effected principally through the influence of dress, is shown by the following facts determined by experiment:—The costal breathing is much less apparent, and the abdominal more pronounced in civilized adult females who have never worn corsets; the costal type of respiration is more marked in the civilized and in the Indian females when the abdominal constriction is tight, and it is less marked in the civilized, and is wanting in the Indian females, if the abdominal movements are not restrained by tight dress; the respiration in the male is distinctly costal if the movements of the diaphragm are restricted by a tight band around the abdomen; the costal breathing is much more marked in those Indian females who have a mixture of white blood in their veins than in those of pure Indian stock, thus showing, too, that the influence of inheritance plays a part in the modification of the chest movements.

It has been proven by the experiments of Mosso, and is evident from clinical experience, that the capacity of the lungs is greater than is necessary to meet the ordinary demands of the body. This diminution of function should be equally distributed throughout the lungs, but such is not the case on account of the anatomical relation between the bronchi and the different portions of the lungs: the bases and middle portions of the lungs expand always

before and more completely than the apices. Under sedentary conditions of life this inactivity of the apices becomes excessive, and a change in their physical and physiological states results in pathological changes which are included under the term atelectasis, a shriveling of the lung, or congestion of the part, and a serous transudation into the acini and bronchioles. The hyperemia may relieve itself by hemorrhage, which is often mistaken for a sure indication of existing phthisis, but is really an expression of a condition which favors the disease. Woman by virtue of her costal breathing is able to ventilate well her apices and withstand the evil influences of indoor-life better than man, in whom expansion of the upper portion of the chest is restricted not only by the type of breathing peculiar to him but by the fashion of dress, which demands that his clothing be suspended from his shoulders.

All these factors at work in man are successfully counteracted by the proper training of the chest muscles, by systematic breathing, by which is meant deep, voluntary breathing at frequent intervals during the day, and especially by means of the pneumatic cabinet, inhaling compressed air and expiring into rarefied air.

L. T. S.

IMMUNITY FROM PAIN IN THE INSANE.

At the monthly meeting of the Medical Society of Victoria, (*Australian Med. Jour.* Feb. 15, 1888) Dr. Edward Neild read a short paper calling attention to an "immunity of the insane from physical pain in organic diseases and injuries which, in the sane, are accompanied by much bodily suffering." He reported the case of an insane patient admitted to the Asylum at Kew, Mar. 9, 1886, the surgeon at the Sandhurst Hospital having that day removed the blade of a pocket-knife from his umbilicus. This had apparently entered the cavity of the abdomen. No symptoms of peritonitis were present, nor had he passed blood per anum. The patient

stated that he had also inserted a darning needle through the same place as the knife-blade until it disappeared. He was sent to bed, and placed under special notice, but beyond some pain referable to the abdomen, on change of position, he never suffered in any way. He speedily regained his health. His mental condition improved, and he was allowed to go to his friends on probation, but was returned two months later.

Sept. 20, he stated to the doctor that in February preceding he had swallowed a fork. He said that at present he felt ill. He was removed to the hospital and sent to bed. There was marked dulness over the cardiac area; the hepatic dulness was increased toward the left side; there was pain referable to the right shoulder, and evident distress in examining the abdomen. There was slight cough but no dyspnea and no vomiting. He sank rapidly, and died two days later.

On post-mortem examination it was found that the heart itself was normal; but there was a nearly closed opening connecting the cavity of the pericardium with that of the esophagus, and for about four inches adjoining this opening, the lining membrane of the tube was roughened and sloughy. In the abdomen there were evidences of recent peritonitis, with some adhesions. A much oxidized sewing needle, two and a half inches long was inserted in the upper part of the great omentum. On opening the stomach the handle of a German silver dinner-fork was observed, the prong end was through the pylorus, and it was firmly stuck, to the extent of two inches, into the anterior part of the lesser lobe of the liver. It was so firmly fixed that it required to be cut out. The liver generally was much congested. The rest of the organs were normal. As another evidence of the tolerance by the insane of conditions which in the sane would be attended with great suffering, Dr. Neild showed twenty-four calculi taken post-mortem some years ago from the bladder of a lunatic, aged 61, who during life had never exhibited any symptom of vesical irritation. He also remarked the case of a patient found smoking with the tip of his finger in the bowl

of the pipe where he had allowed it to remain until the joint was burnt off, and that of another who amputated his penis and testes with a piece of sharpened hoop iron, yet recovered perfectly, never showing the least consciousness of pain.

Dr. Neild remarks that this fact of immunity from pain in the insane is not always sufficiently borne in mind in ordinary practice, when the absence of physical suffering is sometimes regarded as a favorable sign, whereas, it is really not seldom an indication of brain lesion, the presence of which is apt to mislead by masking the gravity of the situation.

THE ORIGIN OF DIPHTHERIA.

Every careful study which tends to throw light upon the etiology of any serious disease, has a special interest in the fact that such knowledge is likely to be helpful to us in the effort to cure or to prevent such disease.

In *L'Union Méd.* Feb. 14, 1888, we find a paper by M. L. H. Petit on the transmission of diphtheria to the human race from fowls. He refers to various studies on this subject by different writers. He says that while Nicate, in 1878-9, published some facts tending to demonstrate the contagion of diphtheria between fowls and infants, Megnin, relying upon numerous cases of non-contagion and upon microscopic examinations, rejected the identity of the two affections. Since then bacteriology has made such progress as permits Loeffler, Cornil and Babès to affirm the almost absolute identity of the bacilli found in the diphtheritic false membranes of birds and those of infants, but not always the contagion of the disease from the one to the other.

Supporting the facts reported by Nicate, M. Petit finds a thesis by M. Menziès sustained before the Faculté de Médecine de Paris, in 1881, and more recently Delthil, Pamard and Bouchard at the

Congress at Nantes (1886) and Teissier at the Congress at Vienna (1887) have cited others of the same kind.

M. Menziès, in his thesis, has undertaken to demonstrate that diphtheria is caused by the dejecta of birds: he reports no case of contagion from birds to man but we know that diphtheria of fowls is frequent in Italy according to several authors cited by Megnin, Ercolani and Pietra Santa among others. He had occasion to observe in 1871 at Posilipo and afterwards at Naples, an epidemic of diphtheria, which attacked the family of one of his colleagues. Of five children four were attacked and died: then the epidemic extended to others. M. Menziès attributed this epidemic to the water which the patients drank. Those who have traveled in Italy, he says, have remarked the flat roofs with which the houses are covered and upon which live flocks of turkeys, fowls and pigeons, as well as rabbits. The ordure of these animals carried by the rain passes into the cisterns or wells. Such was the condition of the house of his fortunate colleague.

Naturally the servants were forbidden to take water for cooking or drinking from these reservoirs. Unfortunately the well from which potable water could be taken was at a distance from the house. For several days the servant obeyed the commands, but hearing the assertion of a neighbor that all the neighbors used the water from the house wells and no one suffered therefrom, he finally yielded to his laziness, and used the water that was more convenient. The epidemic soon broke out.

A boy, æt. seven years, living in a house opposite the preceding one drank water from the same well, was also attacked with diphtheria and died. In another house there was a large dove-cote: all the ordure from its occupants found its way into the well. Among the dwellers in that house a lady and four or five children died.

M. Menziès believes then that in every epidemic of diphtheria it is necessary to seek the source of the trouble in the vicinity of chicken roosts, of piles of manure, especially the manure of stables

and in deposits of guano. Is it not possible, he asks, that wells in the vicinity of which the disease has been developed have been contaminated by guano thrown upon the neighboring fields? Have we not noticed the outbreak of an epidemic or the appearance of an isolated case immediately following after the spreading of guano upon the fields, or the cleaning out of a hen-coop or dove-cote?

A fact which argues in favor of this origin of diphtheria, is that of the five children of his colleague, only four were attacked, while the fifth escaped for a reason which appears to M. Menziès most significant, viz., that he never drank water.

The epidemic recorded by M. Paulinis presents almost the conditions of a laboratory experiment. It ravaged an island on which there had previously been no case of diphtheria: it was brought there by sick turkeys which died of diphtheria clearly and well developed: some days later diphtheria attacked the children and rapidly extended over the whole island.

But here it was not, as in the epidemic reported by M. Menziès, the water which served as a carrier for the virus, but the air. The epidemic continued five months and of a population of 4,000 attacked 125, of whom 36 died. [Then follows a detailed report concerning the epidemic.]

From a study of these facts M. Paulinis draws the following conclusions.

1. That there is in turkeys a kind of diphtheria which resembles human diphtheria by its symptoms, its evolution and its gravity.

2. That its virus may be transmitted by the air to man, give him the disease and become the point of departure of an epidemic.

The author remarks that here, as has elsewhere been demonstrated under similar circumstances with regard to other infectious diseases, diphtheria once introduced remains now in an endemic form upon the island.

M. Petit thinks that the observations thus far made, are favorable to the origin of diphtheria in man by infection from birds.

It is a matter of interest in this connection to observe that during the special prevalence of diphtheria in St. Louis during the last two years the cases have been most numerous in the section of the city where dairies and cow stables are most common. It would be a subject of profitable investigation whether there has been any notable prevalence of disease among the fowls at these dairies.

STATURE OF ANCIENT AND MODERN MEN.—I have measured a great many Roman coffins, and my average shows that the Roman could not have greatly exceeded five feet five inches. In taking measurements of ancient armor, I find that the English aristocracy have decidedly increased in average height within 500 years. I measured twenty-five mummies in the British museum as nearly as I could through the cases, making estimate for wrapping, and I found the average height of males sixty-one inches, females fifty-five inches. The mummy of the celebrated Cleopatra measures about fifty-four inches, about the height of the present European girl of 13. The most ancient mummy of an Egyptian king yet discovered measured fifty-two inches.—MR. STANLEY in *Nature*.

HOW TO EAT.—It is reported that Mr. Gladstone ascribes his splendid health and longevity to having early learned one simple physiological lesson, viz., to make twenty-five bites at every bit of meat. Although the twenty-five bites might not make any impression on the meat, in some cases, the interesting process of counting in every mouthful must be a species of rumination very diverting to the mind, and congenial to the statistical bent of the great treasury minister. For the purpose of mastication, however, shaving the meat off thin across the fibre with a sharp knife would be more effective, and more favorable to sociability at meals. Most people cut it in chunks, and so swallow it, after a treatment that is merely lubricative, like that of a serpent.—*Sanitary Era*.

AMERICAN MICROSCOPES.—Reports from more than twenty colleges regarding the kind of microscopes used and the result of wear, indicate that the American instruments are more satisfactory than the imported ones.

called localized plethora on the other. There are not a few errors of omission, while much that has been given, particularly the description of some experiments in physics, might well have been left out. The author's English is somewhat careless and inaccurate.

As an example of defective proportion in treatment we note that twenty-four pages are given to teeth, mastication, insalivation and deglutition, while the kidneys and urine occupy but twenty-six, and the general principles of reproduction and menstruation, and the male and female organs of generation are put off with thirteen.

On page 44 the author defines a cell as a "mass of living matter, varying from the $\frac{1}{5000}$ to the $\frac{1}{120}$ of an inch in diameter," but in his table on page 219 the red blood corpuscles of the pigmy musk deer are given as $\frac{1}{12335}$ of an inch in diameter.

"The food of man naturally divides itself, like the proximate principles, into three classes, the albuminous, carbohydrate and inorganic." P. 85. Where are the fats?

The author goes to Pereira, 1843, for the composition of the potato, and thus presents a table which, according to recent analyses, trov., Groewen's, is grossly incorrect, the discrepancy in starch alone being more than 15 per cent.

On page 99 occurs the remarkable assertion "a deficiency of oil on the one hand, and of fresh vegetables on the other, produces phthisis and scurvy respectively. A reference to recent literature would have shown that scurvy occurs even when fresh animal, farinaceous and leguminous food is plentifully eaten, as in the outbreak on Anson's ship.

The action of the gastric juice on fats is incorrectly given, and we object strongly to the statement on page 141 that the gastric juice does not "interfere" with the amylolytic action of saliva.

No mention is made of the fermentation processes in the large intestine. In the chapter on coagulation of the blood nothing is said of blood-plaques (hematoblasts of Hayem) and their probable influence on coagulation.

The pericardium can hardly be described as having the form of the heart.

Examples could be multiplied, but enough have been given to show why we cannot recommend the book to students.

W. T. P.

ATLAS OF VENEREAL AND SKIN DISEASES. Edited by PRINCE A. MORROW, A. M., M. D., New York : Wm. Wood & Co., 1888.

We wish to acknowledge the receipt of two numbers or fasciculi of this handsome work. In the prospectus the publishers state that, appreciating the fact that it is impossible for any one author to furnish from his own collection of cases and illustrations the most typical pictures of the many peculiar forms of skin and venereal diseases, they long since determined to enlist the cooperation of the leading dermatologists and syphilographers of the world in their undertaking. With this end in view they have drawn largely from the atlases of Kaposi and Neumann, and have also availed themselves of the pictorial labors of a large number of other specialists both at home and abroad. The editor, Dr. Morrow, besides contributing from his own ample store of illustrations, will also write the text, which will not only be descriptive in character, but will also embody the latest views in regard to diagnosis and treatment. The atlas will be published in 15 monthly parts, each containing five folio chromo-lithographic plates, and many of them containing numerous figures. The numbers that have reached us fully redeem the promises made in their behalf. The text is judiciously written, and the accompanying plates are exceedingly handsome and life-like. A more detailed criticism of the merits of the work will be furnished our readers after the atlas has advanced further toward completion. W. A. H.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES, an atlas and text-book combined. Second series, hand-colored plates; Ninety illustrations from life. By GEO. HENRY FOX, A. M., M. D. New York, E. B. Treat. (St. Louis, J. H. Chambers & Co.)

We have received parts 1, 2, 3 and 4 of Fox's atlas. In the announcement it is stated that the present issue is not merely a revised edition, but that many imperfect plates have been replaced by better ones, a number of new portraits added, and it is estimated that altogether the total number of illustrations has been increased 20 per cent. An examination of the atlas so far as it has come to hand fully substantiates these assertions. There is especially to be noted an improvement in the coloring of the photographs. An important and useful feature of the work consists in making the text an excellent exponent of the present status of dermatological theory and practice—in other words, a text-book of the

diagnosis and treatment of skin diseases. In our judgment there is no clearer and more judicious writer on dermatology than Dr. G. H. Fox, and this capacity of his for putting things in plain and easily comprehended language, added to the beauty and truthfulness of the portraiture, makes his atlas of particular value to the general practitioner of medicine. W. A. H.

THE RULES OF ASEPTIC AND ANTISEPTIC SURGERY. A Practical Treatise for the use of Students and the General Practitioner, illustrated with two hundred and forty-eight engravings and three chromo-lithographic plates, by ARPAD G. GERSTER, M. D., Professor of Surgery at the New York Polyclinic; Visiting Surgeon to Mount Sinai Hospital and the German Hospital, New York. D. Appleton & Co., New York; 8vo., pp. —; cloth; \$—. (St. Louis, J. L. Boland; J. H. Chambers & Co.)

An excellent work in which the author clearly elucidates the idea of aseptic and antiseptic surgery. In the endeavor to give to the profession a systematic and practical presentation of the present status of surgery, and the changes brought about in this branch of medicine by the acceptance of the Listerian principle in modern surgery, the author has been pre-eminently successful.

The illustrations, which are mostly photographs taken from nature, enable the author to show at a glance the application of minute details, otherwise requiring a tedious description, and to furnish an abundance of information in a comparatively small space. Also the description of cases from the author's own practice, which are made use of to illustrate and verify the assertions made in the theoretical part of the text, is a very commendable feature of the work and adds materially to the originality and value of the same.

The careful selection and practical arrangement of the material combine with the above mentioned laudable features of the work to make it a most practical and useful book for both student and practitioner. L. T. RIESMEYER.

EXTERMINATION OF RABBITS.—The Government of New South Wales having offered a premium of £25,000 for the extermination of the rabbits which over-run that country, it is reported that M. Pasteur has undertaken to accomplish the result by sending out a supply of "microbes du cholera des poules" which is as fatal to these little animals as to the feathered bipeds.

REPORTS ON PROGRESS.

DISEASES OF THE EYE.

BY H. L. WOLFNER M. D.

Causes of Blindness.—SNELL found the percentage of the causes of blindness as follows:

Blennorrhea neonatorum	-	-	34.2%
Other conjunctival affections	-	-	7.9 "
Sympathetic ophthalmia	-	-	9.0 "
Accidents to both eyes	-	-	2.7 "
Small-pox	-	-	4.5 "
Fevers	-	-	3.6 "
Congenital cataract	-	-	4.5 "
Congenital blindness (various causes)			6.3 "
Atrophy of optic nerve			18.0 "
Corneal opacity	-	-	5.4 "
Iridochoroiditis	-	-	0.9 "
Retinitis pigmentosa	-	-	0.9 "
Miscellaneous	-	-	2.1 "

(*Archives of Ophthalmology*)

New Remedies.—EDGAR BROWNE reports on several new remedies. Comparing atropine and scopoline he finds that the latter acts rapidly and energetically, and that its effect lasts longer.

Muriate of aconite used as a local anesthetic is of very little value, its anesthetic properties being slight and very evanescent.

Iodol is equal to iodoform.

Trichloro-phenol is very useful as an antiseptic in gonorrheal ophthalmia: a $\frac{1}{2}\%$ solution is used.

He also states that the actual cautery is very useful in treating ulcers of the cornea.—*Brit. Med. Jour.*

Hydrogen Peroxide in Ophthalmic Practice.—WACKLAKOW finds hydrogen peroxide a very useful remedy. Its antiseptic effect is powerful. When brought in contact with the healthy unbroken

ocular tissues, or with the skin it remains unchanged. Should the tissues be broken however, the effect is the same as if pus were present, the H_2O_2 decomposes, and the spot is immediately covered with foam. It is therefore a powerful remedy in purulent keratitis.—*Ruskaya Med.*

Hyoscine.—In writing on the subject of hyoscine WALTER comes to the following conclusions: 1. Hyoscine (the muriate) closely resembles atropine in its action on the pupil and accommodation. 2. Its action begins much sooner, the mydriasis does not last as long, the paralysis of accommodation not quite as long. In this respect a solution of hyoscine 1:1000 corresponds to a solution of atropine 1:120. 3. Hyoscine does not seem to affect the intra-ocular pressure in chronic glaucoma. 4. In acute glaucoma it is contra-indicated, while in some cases of chronic glaucoma sight and field of vision somewhat increased. 5. The constitutional effects of hyoscine are less dangerous. 6. For general use a solution of 1:1000, 10 to 15 drops of which are to be instilled, or 1:400, 4 to 6 drops at a time is recommended.—*Archives of Ophthalmology*.

Irregularity of Pupils in Healthy Persons.—IWANOW found in the examination of 134 healthy young recruits, only 12 who had pupils of equal size. The right was larger in 49, the left in 73. The face was asymmetrical in 131 the left being larger in 99 the right in 32. The larger pupil frequently belonged to the smaller side of the face, while the latter usually seems to belong to larger side of the body. An unequal width of the pupil does not, therefore, always have a pathological significance.—*Wratsch*, 1887, No. 7.

Cataract Produced by Naphthalin.—BOUCHARD, DOR, PANAS and others have caused the formation of cataract in rabbits, by the administration of naphthalin. Before the cataractous degeneration takes place, there are numerous crystalline deposits formed in the retina and choroid. These spots are composed mainly of oxalate, sulphate and carbonate of lime and are also found in most of the viscera. A dose of 3 grm. was given to each rabbit daily. After a few doses had been taken the animals showed signs of general malnutrition, and crystals of carb. and sulph. of lime, were found in the urine. It was not until after these changes had taken place, that any effect on the eye was observed.—*Ophthalmic Review* Dec. 1887.

GENERAL MEDICINE AND THERAPEUTICS.

BY L. T. STEVENS, M. D., ST. LOUIS.

Neurasthenia and Lithemia: their Differential Diagnosis.—DR A. D. ROCKWELL, of New York, calls attention to the frequency with which these two diseases are mistaken for each other. The aggregate of symptoms associated with neurasthenia is very large, but an individual case presents only a small portion of them, and may bear a strong resemblance to lithemia with its few definite signs. The importance of distinguishing between these two is with special reference to treatment, which is diametrically opposite in the two cases; the relief of lithemia depends upon, as it is caused by, the character and amount of food and drink, and habits of exercise; while nervous exhaustion results from worry and work and nervous strains, and demands rest, change of surroundings, and full diet. The presence of uric acid in the urine is not a sufficient diagnostic sign, as it is found in some neurasthenic patients, and is present in the lithemia only at certain times—when the bowels become constipated, and the system surcharged with the products of disordered digestion; reliance is, therefore, to be placed in other objective, as well as in subjective symptoms. One of the most common and distinctive points of differential diagnosis is the difference in the character of the mental phenomena. “Both the lithemic and the neurasthenic suffer from mental depression and a profound sense of misery, more marked, indeed, in the former than the latter condition, while, however, the neurasthenic may suffer from the deepest melancholy, and imagine himself heir to a thousand ills, he becomes the victim, as a rule, of no such irritability and unreasonable out-bursts of temper as the man whose brain is actually poisoned by the imperfectly transformed products of digestion. The neurasthenic may at times be extremely irritable—but this irritability is more passive than active, and any ebullition of angry feeling is quite evanescent. His demeanor is, as a rule, quiet, and there is but little manifest tendency to make those dependent on him miserable by his words and actions. The touchy mood of the lithemic may, on the contrary, last for days or weeks. It is due to actual toxemia, is often, if not generally, accompanied by obstinate constipation, and may be relieved completely by the action of a cholagogue cathartic.” In neurasthenia cold extremities are

by no means the rule, but the nitrogenous waste material present in excess, in the blood of the lithemic irritates and causes spasm of the arterioles, resulting in the cold hands and feet so bitterly complained of by these. In lithemia the tongue is coated much more frequently and extensively than in neurasthenia, but in some cases of the former disease it is only slightly affected, and at times may at first sight appear perfectly normal; and it is only by carefully examining from the side that an unnatural brownish color is observed. In lithemia the pulse is slow rather than fast; in neurasthenia it is the reverse. The oxalates are frequently found in neurasthenia, but are unusual in lithemia.—*N. Y. Med. Jour.* Feb. 1888.

The Feeding of Sick Children.—DR. JACOBI points out that from the very first month of life a distinct diastatic effect is produced by the oral secretion, and that it increases every month. Moreover, this effect persists in the stomach for from half an hour to two hours; but it ceases altogether as soon as hydrochloric acid has begun to be secreted. Lactic or other organic acid alone is secreted with the pepsin in the stomach for the first half hour or more, and in debilitated subjects for the greater part or the whole of the digestive period. The diastatic power of the pancreas begins with the fourth week only, and remains feeble up to the end of the first year.

To increase the secretion of pepsin and hydrochloric acid, which are deficient in anemia, convalescence, and more particularly in fevers, large quantities of water are required, and peptones are not absorbed unless greatly diluted. Therefore, not only should infants' food be mixed plentifully with water, but water should be given alone, occasionally, more especially in the summer time. Water is indicated in diarrhea, general inanition, perspiration, and feverish diseases; where it is not retained, enemata should be employed.

Further, where metamorphosis is slow, water increases the elimination of urea and carbonic acid; when the urine is concentrated, water protects the kidneys from undue irritation; it liquefies the mucus in laryngitis and bronchitis, and removes the dryness of the bowels in constipation. On the other hand, in some forms of acute gastro-enteritis, where vomiting and diarrhea are excessive, the only salvation lies in total abstinence for from four to ten hours. Sugar must be added to an infant's food, because human

milk contains a larger portion than that of either cow or ass; but cane sugar is preferable to milk sugar, because it is much less rapidly converted into lactic acid.

Milk should never be given to well or sick without the addition of table salt. This, amongst other things, prevents the solid coagulation of milk. Fatty substances must be given with caution. The white specks in babies' motions are nearly always composed of fat and epithelium, and the administration of cream and cod-liver oil is very injurious in such cases.

The mixed milk of a dairy is preferable to that of one cow, it must be boiled before being used. Condensed milk is not uniform, and its use for that and other reasons is precarious. Goat's milk contains too much casein and fat besides being otherwise incongruous. Skimmed milk, prepared in the usual slow way, is objectionable, because acid. No infant's food should contain more than one per cent of casein.

The best way to dilute cow's milk, and at the same time, render it less liable to coagulate in large lumps is to add a decoction of a cereal; barley, when there is a tendency to diarrhea; oatmeal, when the tendency is to constipation.

The newly-born should have boiled milk(sugared and salted)mixed with four or five times its quantity of whole barley water; at the age of six months, they should be of equal parts. Gum arabic and gelatine may be used in a similar manner. These are not only diluents, but, under the influence of hydrochloric acid, nutrients. Beef-tea, or, when there is diarrhea, mutton-broth, is advisable toward the end of the first year or much earlier than this in rickets, undue adiposity, and retarded teething. Peptonized beef tea, such as Rudisch's or Reed and Carnrick's Beef Peptonoids may be mixed with both.

Scraped beef is easily digested, but is open to the objection that ova of the *tenia medio-canellata* may be ingested in it. The white of an egg beaten up with six ounces of water and a little salt, is a good temporary expedient. Cow's milk is rendered more digestible for those infants or adults who cannot tolerate it in its ordinary conditions, by mixing half a teaspoonful of dilute hydrochloric acid with a pint of water and a quart of milk and then boiling it.

Alcohol is contra-indicated in meningitis, and acute dysentery. It is stimulant, nutritive, antipyretic, and antiseptic. The amount

necessary to reduce the temperature is that comprised in about three ounces of whisky or brandy.

It must always be diluted either with water or with properly prepared milk. Whoever is not afraid of giving six ounces of whiskey daily to a child when one or two fail, or ten or twelve when six fail, will soon convince himself of its power for good. Whiskey is, as a rule preferable to other stimulants; the ether of wines neutralizes the antipyretic effect of the alcohol, and the fusel-oil its stimulating action.—*Arch. of Ped. London Med. Rec.* Feb, 1888.

On the Pathology and Treatment of Pernicious Anemia.—DR. PAUL SANDOS reports the case of a female patient, aged 31, which presented all the typical symptoms of pernicious anemia, great pallor, extreme weakness, irregular fever, retinal apoplexy, and disturbances and irregularities of the organs of circulation and digestion.

Blaud's steel-pills and pepsine with hydrochloric acid had no effect, and the condition of the patient grew worse. Appetite entirely failed, and the debility became excessive; she was no longer able to sit up in the bed, was listless and apathetic, ceased to reply, and refused any kind of nourishment. The breath was most offensive, the edema about the ankles had increased, and the pulse rose to 120. A speedily fatal termination was apprehended. Under these circumstances Dr. Sandos resorted to washing out the stomach. Only a small quantity of curdled milk was evacuated, and the washing out was continued until the water passed off perfectly clear.

The patient immediately felt greatly relieved, and was enabled to drink small quantities of milk and beef-tea during the same day. The fever completely ceased after the first washing out the stomach, and never returned. Further washings out improved the general condition of the patient, who left the hospital perfectly well. Dr. Sandos draws from this case the following conclusions:

1. The disturbances of the digestive organs, which occur during the course of pernicious anemia, and which hitherto were considered as merely symptoms, seem at least in certain cases, to be rather the cause itself of the disease.

2. These digestive disturbances very likely set up decomposition and fermentation in the stomach and intestinal canal, the resorption of products of which is able to call forth the symptoms of pernicious anemia.

3. Washing out the stomach, combined with enteroclysis, seem to be the most adequate treatment of cases originating from this cause.

4. In cases of this kind the designation of the complaint "pernicious anemia, might be changed into the appropriate term "dyspeptic anemia."—*London Med. Rec.*, Jan. 1888.

Albuminuria a Frequent Result of Sewage Poisoning.—A great variety of diseases are known to be directly dependent upon defective drainage. DR. G. JOHNSON has seen cases of purulent inflammation of the mucous membrane of the fauces, and suppurating glands of the neck, which were demonstrably the result of septic sewer poisoning; and he thinks that some cases of pleuro-pneumonia may be traced to the same cause. But the object of this paper is to call attention to the association of sewage poisoning with albuminuria, as probable cause and effect. He cites four cases in support of this view. The first was that of a man, who had been ailing off and on for upward of four months; he had had soreness of throat and neck with occasional rigors; no edema; the urine was scanty, loaded with urates, and contained .7% albumen with a few hyaline and epithelial casts. In the absence of any other apparent exciting cause, the drainage of the house was examined and a very marked defect was discovered. On removal to healthy quarters and under the usual treatment, the albumen began to disappear, and was entirely gone in three weeks; nor has it since reappeared (lapse of 19 months). The other three cases are somewhat similar to this one, only not quite so striking. Starting with a healthy individual of good habits, placing him under surroundings which are apparently bad only in respect to drainage, and having sore throat, diarrhea and other slight ailments developed in him and others about him, and, finally, albuminuria appear, is certainly very suggestive, though not positive proof, of the relation which the author upholds, and is amply sufficient to cause every physician to eliminate this probable direct evil influence, if it exists, from the surroundings of a patient suffering from albuminuria of obscure origin.—*Brit. Med. Jour.*, March 3, 1888.

Therapeutics of the Uric Acid Diathesis.—DR. BURNEY YEO considers appropriate treatment of this constitutional state, and the various maladies associated therewith, which depends on the tendency to the accumulation of uric acid, in excess, in the human or-

ganism. The various views which prevail as to the mode of origin of this excess are briefly summarized, and as a basis for therapeutic discussion the author considers that it may be accepted, that the "uric acid diathesis" is associated with imperfect nutritive metabolism and imperfect excretion of the results of retrograde metamorphosis, especially of albuminous substances. After enumerating the principal morbid conditions dependent on or associated with the uric acid diathesis, Dr. Yeo mentions the principal remedies proposed for affections connected with this diathesis. In treatment, the question of diet and mode of life is of even more importance than medicine. In these matters each person requires a separate study, especially with regard to digestive peculiarities; our object should be to construct a diet which shall be readily digested, and which does not tend to excite acidity and undue fermentation in the alimentary tract. As regards the use of alcoholic drinks, women as a rule should avoid them.

Malt liquors and bad wines are most prejudicial in this diathesis; the widely accepted idea that a cheap claret is harmless is a grave fallacy, for these cheap wines are more harmful than a good quality of champagne or burgundy.

No remedy is more valuable and important than the regular consumption of a considerable quantity of pure and preferably hot water. With regard to medical agents, Dr. Yeo considered colchicum one of the most valuable, when given judiciously, for most of the morbid manifestations of this diathesis. Salicylates he does not consider of much value, unless the uric acid and rheumatic diathesis are combined.

Garrod advocates the use of the benzoates of sodium and lithium, but some observers doubt their efficacy. In the same way Garrod has found great benefit from guaiacum in chronic articular gout, but little attention has been paid to his recommendation. The value of iodide of potassium is as yet imperfectly understood; it acts most beneficially in chronic arthritic affections, but it has its most important application in the less easily recognized degenerative changes dependent on this diathesis.

If long continued in fairly large doses, this drug has a remarkable influence in retarding the progress of those degenerative vascular changes dependent on the gouty constitution. The use of the various alkalies in these cases is almost universally accepted, but Dr. Yeo does not see why the lithium compounds are superior to

those of potash or soda, and considers the diuretic effect of bicarbonate of potash, especially when given with hot water, to be more reliable than any other drug. Closely connected with the use of alkalies is the employment of the various mineral waters. Such a variety of these have been recommended, and their compositions are so varied, that the author thinks the benefit derived from their use depends a great deal on the change of diet and regular living enforced on patients when taking the waters. Purgatives are useful only in so far as they are the means of ensuring the discharge of excrementitious matters from the system; it is a mistake to drain away the serum of the blood by drastic purgatives after we know the bowels are completely relieved. One of the most complete and satisfactory purgatives in these cases is a pill at night containing half a grain of extract of colchicum and two grains of watery extract of aloes, followed in the morning by a large teaspoonful of Carlsbad salts in a tumblerful of hot water. Diuretics and diaphoretics are useful as stimulants of excretion, and a very hot bran bath is a most useful agent in many cases. Opium should be avoided as much as possible, because of its influence in checking excretions generally.—*London Med. Rec.* Feb. 1888.

On the Course of the Fever in Typhoid and Pneumonia.—A study of hourly charts from 100 cases of pneumonia and 200 of typhoid by AMPUGNANI, yields the following results.

With regard to typhoid fever:

1. The temperature oscillates in the course of the day between relatively wide limits, presenting appreciable differences between one hour and another; this variation may exceed 1°C .
2. The greatest oscillation between the maximum and minimum of the twenty-four hours is found in the first three weeks, these oscillations are ordinarily of 2° to 2.5°C ., sometimes touching as a maximum 3.3°C . In this period, however, the seventh, fourteenth, fifteenth and sixteenth days are exceptional; on these days the limits of variation are less, and are between 1° , 2°C .
3. From the twenty-second day onward the oscillations are less, being under 2°C ., and in the later days under 1°C .
4. In cases running a fatal course, the oscillations are commonly less and the fever has a more markedly continued character.
5. The greatest depression occurs in the morning hours between seven and ten. On the fifth, fourteenth and twenty-first days the

depression, however, is anticipated, and occurs between 4 A. M. and 7 A. M.

6. The highest temperature occurs generally from three to six in the afternoon and then falls to midnight. In fatal cases, however, the maximum is reached toward midnight.

7. High temperatures are not necessarily of evil augury; indeed, the highest temperatures recorded occurred in patients who recovered. As a rule in the typhoids who die, the temperature oscillates between 39°C . and 40°C ., and the cases are very few in which these limits are exceeded.

In acute fibrinous pneumonia it was found:

1. That the temperature in the course of the day oscillated between certain limits, offering appreciable differences between one hour and another, the oscillations varying from $.4^{\circ}$ and $.6^{\circ}$ to 1°C .

2. The greatest oscillations occur in the first five days and are ordinarily from 1° to 1.5°C . between the maximum and minimum of a day. Exceptionally they may reach a maximum of 3°C . In the following days the variations are less, and the difference between the maximum and minimum oscillates between $.5$ and 1°C .

3. In fatal cases the oscillations are as a rule less, and the fever is more continued in character.

4. The minimum depression occurs in the morning, on the first day between 8 A. M. and 9 A. M. From the fourth day onward the depression is anticipated and takes place between 4 A. M. and 5 A. M.

5. The greatest elevation is generally between 7 P. M. and 9 P. M. during the first five days; on the following days it is earlier, generally between 4 P. M. and 6 P. M.

6. In fatal cases the maximum elevation of the day is reached earlier and lasts longer.

7. In cases with slow resolution the greatest elevation, instead of lasting two or three hours as happens normally, lasts longer for six hours or more.

8. High temperatures are not of bad prognostic; the highest temperatures observed belong to patients who recovered.

As in typhoid, in fatal cases the temperature oscillated between 39°C . and 40°C ., and in very few cases exceeded these limits.—*London Med. Rec.*, Jan. 1888.

Children's Food in Typhoid Fever.—JACOBI recommends the fol-

lowing mode of treatment: Typhoid fever is of long duration, its temperature is sometimes quite high in children, as in adults. The small intestine is affected principally. Thus, not only is, after the first few days, a considerable amount of food required, but it must be so chosen as to be digestible in the stomach; its proper selection is the more important the more the latter organ is impaired by high temperatures. Besides plenty of water, or acidulated water (hydrochloric, no organic, acid), albuminoids are indicated. Milk and cereals (in decoctions, which must be strained) are the proper foods. The administration of stimulants, both as to quantity and to time, depends on the character of the individual case, and the power of resistance on the part of the patient, besides the condition of the heart. When the latter becomes feeble at an early period, besides heart-stimulants (digitalis, spartein, caffein, camphor), alcoholic stimulants are required. Diarrhea, demands (besides opium, naphthalin) albumen, rice-water, arrow-root, mutton-broth. Hemorrhage forbids food in any shape for a time, the duration of which depends on the general condition of the patient. At no time during the disease, and during the first ten days of fully established convalescence, must the food ever be solid. No vegetables must be allowed until three weeks have elapsed since the beginning of apyrexia. When the milk and cereal food became distasteful, a change in their preparation, will and must suffice. The large majority of relapses are due to a dereliction in the strict rules of feeding.—*Med. News*, March 1888.

Sour Milk in Summer Diarrhea.—DR. OSTHOFF, house-surgeon of the Prison Zweibruecken, has spoken very favorably of the employment of sour, curdled milk in summer diarrhea, in adults as well as in children. He endeavors to explain the beneficial action of sour milk in the following way: He believes that the bacilli of sour milk destroy and overcome, by their rapidity of growth, the other micro-organisms that are the cause of the diarrhea, and that they thus bring the process to a standstill. In addition to its value as a dietetic agent in summer diarrhea, it proved exceedingly useful in all chronic abdominal affections associated with dyspepsia, in chronic intestinal and hepatic diseases with diarrhea, or constipation, in jaundice, and as an article of diet in typhoid, pneumonia, and erysipelas. In tuberculosis of the intestines, however, it increased the diarrhea. It forms a valuable means of support

to Oertel's treatment in cardiac cases, and cases of emphysema, in small quantities as a substitute for coffee, wine, beer, and water, as a thirst quenching drink, as well as a food containing both muscle-and fat-forming in one and the same form. According to Voit, sour milk resembles closely fresh milk as a food (four per cent albumen, three per cent fat, four per cent sugar.) The use of it is to be recommended as an addition to the needful amount of hydrocarbons. Moreover, especially in summer, it forms a refreshing drink, and may be ordered with advantage in dyspepsia. Its action is varied, sometimes causing constipation, and sometimes diarrhea; for this reason it is to be used with caution in infantile diarrhea. In general he recognizes the value of sour milk as an article of diet. Attention is drawn by still another writer to the similarity of sour milk and kefir, and also koumiss; the two last at one stage are laxative, at a later stage constipating. Doubtless it will be the same with sour milk, as it gets older it becomes more constipating. —*Med. News*, March, 1888.

Amylene Hydrate as a Hypnotic.—The following are the results of DR. G. AVILLE's experiments with this drug: 1. It is a hypnotic, the effect of which is certain if it is given in sufficient doses. It is less powerful than chloral, more powerful than paraldehyde. 2. It had also an influence on people who were accustomed to narcotics; these, however, required a larger dose. 3. Sleep came on very quickly without a stage of excitement. The intensity of the sleep varied according to the quantity of the dose, but the patients could always be aroused. When awakened, they at once became partly conscious, and, if undisturbed, they immediately fell asleep again. 4. The sleep lasted, after very small doses, from two to three hours, after large doses (from 2. to 3.2 grammes) from six to eight hours. 5. The awakening resembled that of natural sleep; the patients felt refreshed, and there was neither headache nor lassitude. 6. Respiration was not affected. 7. There was no change in the pulse or the blood-pressure, except the retardation of the pulse, which was also observed in the normal sleep. 8. There was no bad taste in the mouth nor disagreeable smell of the breath on awakening, such as was noticed after paraldehyde. 9. As to whether patients were liable to become habituated to the drug, no decision could be arrived at. In no case had they been obliged to increase the dose, even after repeated use. Disagreeable after-

effects of a somewhat dangerous character were observed only in two cases; in three cases it had no effect at all. The drug was tried in various internal diseases; the effect was particularly good in jaundice and icteric itching of the skin. In all cases of disordered circulation, amylene hydrate was preferable to chloral, as the latter considerably diminished the pressure in the vascular system. No counter-indications could be found. In severe disorders of the stomach it was to be administered by clysters.—*Brit. Med. Jour.* March 10, 1888.

OTOLOGY.

BY M. D. JONES, M. D.

Otitis through Infection.—DR. HESSLER states that among 400 patients he has noticed this form of otitis eight times, and later 17 cases among 3500 patients. It is apt to be confounded with circumscribed otitis externa, and is due to picking the meatus with hair-pins, etc., and so carrying morbid matter to the abraded part. Among the several cases given in detail the following will suffice. The patient, a boy, aged nine, was wounded in the meatus with a hair pin, by his mother, who was cleaning the part. That night he had a chill, followed by high fever, and could not sleep owing to great pain in the ear. In the morning there was marked edema in front and behind the auricle, down the neck, with enlargement and tenderness of the glands.

The unclean pin had here, according to the writer, unquestionably infected the little patient. He takes occasion to reprimand Politzer, for recommending in his book, such an unscientific remedy as a piece of bacon spread with salol, for otitis externa.—*Arch. f. Ohr.*, 26 Band, 1 Heft.

Nitro-Glycerine in Tinnitus Aurium.—DR. LAUTERBACH from a large experience with this remedy, thinks he has learned in what class of cases of tinnitus we may expect a good result. It is where there is not much deafness; where the naso-pharynx shows but little change; and where there is some heart trouble, either functional or organic. In some of the cases treated successfully, the middle ear showed marked inflammatory changes. Dull headache located in the

parietal and frontal regions was often present. The nitro-glycerine was given in pill form ($\frac{1}{100}$ gr.) At first one pill a day was given and this gradually increased until tinnitus was diminished, or headache brought on. In cases of long standing the treatment was persevered in from one to three months.—*Med. Times*, Jan. 1, '88.

Pilocarpin in Deafness.—DR. CORRADI in an exhaustive article on this subject, first refers to the successful cases reported by Politzer, Leucæ, Moos and others, and then reports the following case, interesting from the age of the patient, and the long duration of the deafness. The patient, aged 88, an officer on the retired list, when 41 years old, was struck over the right temporal bone, which caused suppuration in that ear, and slight deafness.

Three years before coming for treatment, he noticed a gradual loss of hearing with constant tinnitus. The exposure to a cold wind several weeks before had made his condition much worse. Examination showed the meatus filled with dirt and epithelium, and pus on the left side. The left mt. was gone, and the right one thickened, lustreless and much retracted. The tuning fork placed on top of the head was felt in neither ear, but feebly when placed on the mastoid processes. Politzer's Hoermesser not heard in either ear. Conversation only possible with a speaking tube. Appropriate treatment soon checked the suppuration in the left ear. After the fourth day the pilocarpin was raised to 2 cgm. doses, and on the ninth injection he could hear loud spoken words, and feel the tuning fork in the ears when put on the crown of the head. After the eighteenth injection the hearing became for loud voice, right 5 metres, left, 2 metres. Whisper voice, R. 15 cm. L. 0. Twenty-four injections were used, eighteen of these were used daily, and six every second day. No improvement followed after the eighteenth injection, but a decline in the hearing set in after the twenty-first, 45 cgm. of the salt were used.—*Arch. f. Ohr.* 26 *Band*, 1 *Heft*.

Vertigo and Facial Paralysis Caused by Polypi in Middle Ear.—DR. BLAKE gives the histories of a couple of interesting cases, one of which is as follows: The patient, male, aged 45, had previously been treated for chronic suppuration and for polypi. The night previous to his visit he had a severe attack of vertigo, and awoke in the morning with facial paralysis. Examination showed destruction of the mt. and a polypoid mass pressing on the incus

and inner wall of the tympanum. The removal of the growth with a mass of caseous pus and macerated epithelium was followed by the disappearance of the vertigo and paralysis.—*Boston Med. Jour.* Feb. 16, 1888.

Transplanting the Membrane of the Egg on the Membrana Tympani.—DR. SHIRMUNSKY, of St. Petersburg, passes in review the different artificial membranes that have been suggested, and then speaks of the two successful cases of transplantation by Berthold and Tangeman, where most persistent openings in the mt. were closed by this means. Berthold was the first to suggest, and use the membrane of a hen's egg to close these perforations. Dr. S. has tried this method in several cases with the best result, and reports a case where there was an ulcer in ext. aud. canal, following an operation for atresia. A piece of the egg membrane was nicely adapted to the sore, and in seven days it fell off leaving the part entirely healed.

In the case of a boy where the membranes were gone and where the otorrhea would persist, the author transplanted the egg membrane on the promontory. The formation of pus was diminished markedly and a second transplantation stopped the discharges. The membrane is thrown off after a few days, and works by shielding the inflamed parts from outside hurtful influences.—*Monatschr. f. Ohr.*, Jan. 1886.

2717 Washington Ave.

MOLASSES TREATMENT.

DEERBROOK, MISS., April 11, 1888.

EDITOR COURIER: You may say to Prof. Wolfner that his molasses treatment, in chronic conjunctivitis, is not new. I have used it often in the past 30 years, and with happy effect, even after the most approved treatment had failed. I got the remedy from Prof. Gibson, of Philadelphia, who spoke highly of it in the class of cases mentioned. So we must ring the chestnut bell on the doctor, and repeat the old adage, "Nothing new under the sun." His article was highly appreciated, and the treatment endorsed.

M. K. HARRISON.

FOREIGN CORRESPONDENCE.

BERLIN LETTER.

BERLIN, April 4, 1888.

EDITOR COURIER.--This has been the first day of the meeting of the Society of German Surgeons, and I have been greatly interested in the little I have seen of them. I am taking no active part, and am not even a regular attendant, as interests which affect me deeply and which, as you know, necessitated this journey, still occupy me almost exclusively. I have little heart for anything else just now. Some time I will give to medical societies, where there is so much of interest, especially the tempting invitation of my gynecological friends I cannot resist, now that all is again quiet, and the commotion attendant upon the stirring political events of the past week, during which all Berlin was in a turmoil of excitement, has subsided.

We arrived here on the day after the death of the old Kaiser, in time to participate in all the happenings of that eventful week, which closed with the ceremonies of Friday, March 16, when the venerable monarch was carried to his last rest in the Charlottenburg mausoleum, amid a brilliant display of military and a following of kings and princes. During that week traffic was obstructed in the heart of the city, the streets were crowded, thronged, packed with people. All Berlin turned out, and in addition one-half million strangers, for so many, it is claimed, were here at the time, served to swell the numbers. This was on Friday; on the Saturday and Sunday following, the main thoroughfare, the Linden, was still thronged with the idle and curious who, regardless of the driving snow and bitter cold winds, gathered to take a last look at the draped buildings, the sable arches and altars which had served to decorate the funeral route. By Monday morning they had all disappeared, people returned to their daily work, and the city again resumed its usual aspect. The lecture halls of university

and hospital alone remain silent and deserted, as the students are now enjoying their Easter holidays, during March and April. The time and the classical material in part is utilized by the assistants for post-graduate instruction for "Ferien Curse" for physicians, which have become quite popular here, and, although of comparatively recent origin, are well attended and very thorough. I intend to see something of them as soon as I feel more at liberty; for the present I have devoted my spare hours to the operative work, and you know that this is the centre of operative gynecology, which is flourishing by reason of the safety and certainty of result attained by the perfected asepsis of the day, rather to the detriment of other methods of treatment; but the rebound is certain to come, even here, I am convinced. I have witnessed several operations daily, either in the gynecological wards of the Charité, by Prof. Gusserow, or by Dr. Martin in his private hospital; this morning no less than five, in honor of Prof. Winckel, here in attendance upon the Congress—a most deserving man, whose visit to St. Louis in the fall of '86 some of our friends will recall. To-morrow we are invited to be on hand at seven, bathed and aseptic, to witness three laparotomies.

But of all these more anon. All medical interest now centres in the surgical congress, which was inaugurated last night by a celebration in honor of the memory of Germany's greatest surgeon, Bernhard von Langenbeck, under the combined auspices of the Berlin Medical Society and the German Society for Surgery. The feature of the evening was the address of Prof. von Bergmann, in which he reviewed the life of the deceased leader, to whom German surgery owes the prominence it has attained, who developed the conservative principle of surgery, by the aid of physiology, pathological anatomy and the microscope, which he looked upon as of equal importance to the surgeon with the knife. His influence upon the development of German surgery will be best appreciated when we recall the fact that the chair of surgery in many of the German universities is filled by his students and followers. Sixteen, and among these many of the most prominent professors of surgery, began their career as his assistants.

The military influence which pervades all walks of life in this country cropped out strongly in this assembly, the invitation even gave evidence of this by a prominent foot note, as follows: "Dress:

uniform resp. dress coat and white cravat." So and not otherwise must the great surgeon be honored.

Helmet, uniform and decoration glittered amid the ranks of the audience; not alone the many surgeons of high military rank were present, but also the minister of war, the governor of Berlin, the grand duke of Baden and other notables. On the platform sat the veterans of surgery, Bardeleben, Esmarch, Roth, Koenig, my chief during the Franco-Prussian war, Thiersch; and among the representations of the local society, Liebreich, Helmholtz and others. The absence of Mackenzie will suffice to indicate the spirit of the profession here, as a twenty minutes' drive would have brought him from the palace in Charlottenburg.

Wednesday morning was spent in visiting the great hospital at Friederichshain, in response to an invitation of its able chief, that most successful surgeon, Dr. Hahn, and at 1 p. m., the first session was opened in the aula of the university by the president, v. Bergmann; of the papers read I heard but one, to which I will briefly refer, as it is of general interest; it was that of Prof. Koenig, of Goettingen, on the prognosis of carcinoma, which he finds much less favorable than it is generally supposed to be, and he cites his own mortality in cases of carcinoma recti, 21 per cent. With these unfortunate results he speaks very highly of colotomy which, in cancer of the rectum is what tracheotomy is in a laryngeal disease; although it is not popular in Germany, by this operation the patient may be rendered comfortable, and life may even be prolonged long after a radical operation ceases to be possible. He cites the case of a lady with most extensive pelvic infiltration, with occlusion and sloughing of the rectum, who lived for three years after the performance of colotomy in comparative comfort, so much so that she attended to all her social duties in court circles without annoyance of any kind, and with the appearance of good health. In the case of a business man with rectum occluded and pelvis filled with cancerous masses, two years of active life were obtained by this operation. Whilst this is true of a number of other cases, one year is the time most generally gained. In malignant disease of the rectum colotomy deserves the highest recommendation as a palliative measure, and a certain functional activity is even established, as the orifice may be closed by contraction of the abdominal muscles, so that harder masses can be retained, whilst a well applied truss assists as a check in all cases. Prof

Koenig objects to the cutting and tying of the rectum as very bad practice. The secretions gather, grow offensive and infect, or accumulate in such quantity as to burst through the obstruction and thus re-establish a passage. The rectum should be left open, so that the lower bowel may be kept cleansed by the douche through the upper opening, and absorption and putrefaction be prevented.

In the discussion which followed Dr. Hahn heartily assented to the views of the speaker, in regard to colotomy as a palliative operation in carcinomata recti, and describes a method which he had recently tested with success in five cases—the sewing of central and peripheral openings of the intestines, separately into the abdominal parietes so that it is impossible that feces should pass down and that the lower segment can be cleaned to better advantage. If the operation is performed in this manner in case of syphilitic ulceration, it is much easier to restore a normal condition after cure of the original disease than after colotomy by the usual method.

Bardenheuer advocates a rapid operation by a tearing away of the tissues, which Koenig denounces, as it must sooner or later lead to bad results, yet B. reports but 3 fatal cases in 13 so treated, and these were due to other causes, one from senile weakness, another from incarceration of an intestinal loop in the cul de sac of Douglas, and the third from rapid necrosis.

Schede, of Hamburg, removes a great deal of tissue. Beginning his incision at the apex of the coccyx, he resects this first, is careful to sew the detached peritoneum around the gut, and immediately follows the operation by colotomy in the region of the descending colon, closing the artificial anus as soon as the rectal wound is healed. This is done in order to prevent any contamination of the recently united tissues by gases or feces; the packing of the rectum with iodoform gauze he deems useless and even injurious by preventing free drainage.

Küster of the Augusta Hospital, Berlin, overcomes these objections to the iodoform gauze dressing by the insertion of a large drainage tube in the centre of the gauze packing, which permits secretions, gases and even thin feces to pass.

He deems the prognosis of mammary cancer less favorable than generally supposed, and looks for a hopeful result only after the removal of all glands and connective tissue up to the clavicle: he divides the pectoralis major transversely, in extreme cases only the

pectoralis minor, removes axillary, infraclavicular and often clavicular glands and the connective tissue around the pectoralis, as this is frequently the seat of the recurring growth: the muscle is united by cat gut sutures before closing the wound. Prof. Gussenbauer takes the position that it is the surgeon's duty to operate if the fact can be established that some are cured, and thinks that the prognosis is more favorable now that the importance of the neighboring lymphatics is fully appreciated and insists on the complete cleaning out of the axillar and the removal of clavicular and infraclavicular glands with the mamma, and in cancer of the rectum, the sacral connective tissue and glands up to the promontory.

The president, Prof. v. Bergman, in closing this important discussion, takes position in favor of operative interference, of course, at the earliest time possible, and cites the record of the Berlin clinic since he has assumed charge—three fatal cases only in forty-six operations, and out of twenty-six very serious cases, not a single death. In view of these results he deems the radical operation preferable to colotomy, if at all possible.

A short recess followed which gave me the opportunity of escape. The programme is an interesting one, and I will endeavor to return to-morrow, either in the forenoon (10—1), when patients and specimens are presented in the lecture room of the surgical clinic, or in the afternoon (1—4) to listen to the scientific papers in the aula of the university; two sessions daily are held, and during the evening the members will be entertained in a quiet way in private houses. The usual dinner and general entertainments have been omitted on account of the emperor's death. On Saturday, April 7, the Congress will adjourn. The profession of the city, especially the younger members, attend in large numbers, and I fear that a powerful stimulus will be given the *furor operationis* which prevails here to an alarming extent, and which has taken complete possession of gynecology, and at present absorbs everything in its dangerous whirl. More anon from

Your friend,

G. J. ENGELMANN.

CREMATION.—It is stated that there are twenty-two crematories in Europe, of which ten have been built during the past year. There are seven crematories in the United States, and six in the process of erection.—*Med. News.* March 17.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated meeting, March 22, 1888. DR. COLES, President in the chair.

PERSISTENT HEART ACTION IN APPARENTLY STILLBORN CHILD.

Dr. Gehrung read a paper reporting a case of continued action of the heart in an apparently still born child, there having been partial placenta previa.

Dr. Walter Coles.—Was this a mature child?

Dr. Gehrung.—Yes, sir.

Dr. Coles.—Was that the first hemorrhage?

Dr. Gehrung.—I think not; I believe there had been hemorrhage at some time before.

Dr. Coles.—You spoke of the child being exsanguinated, how did that happen?

Dr. Gehrung.—I cannot account for it; except upon the theory that it became exsanguinated from the hemorrhage from the placenta. I think that sufficient to exsanguinate the child.

Dr. Scott.—But the blood does not come from the fetal side of the placenta.

Dr. Frank Glasgow.—Had any attempt been made to remove the placenta before you saw the child?

Dr. Gehrung.—I do not know.

Dr. G. A. Moses.—How much of the placenta had been separated before delivery?

Dr. Gehrung.—About one-third of it.

Dr. Moses.—Was it intact?

Dr. Gehrung.—I do not know; I have not examined the placenta.

Dr. Prewitt.—Dr. Scott says the fetal side of the placenta does not bleed, but I should like to know why, if the placental sinuses are torn, they should not bleed.

Dr. Scott.—The placental sinuses do not communicate with the fetus; the villi of the chorion fit in like the fingers of a glove and the process of exosmosis and endosmosis goes on.

Dr. Prewitt.—Where does the blood of the fetus go to?

Dr. Scott.—It goes back.

Dr. Prewitt.—When the blood comes from the fetus where does it go to?

Dr. Scott.—It goes back to the fetus again.

Dr. Prewitt.—Where does it go to before it goes back?

Dr. Scott.—It goes through the fetal side of the placenta. It has been proven by Barnes and others that the hemorrhage for placenta previa comes directly from the uterus and not from the placenta. There is no bleeding from the placenta at all.

Dr. Prewitt.—Suppose the placenta is torn?

Dr. Gregory.—That is another question.

Dr. Prewitt.—Why should it not be torn in many cases?

Dr. Gregory.—That ends the discussion of course.

Dr. Gehrung.—Why is it that so many fetuses die in placenta previa when the fetus does not lose a drop of blood?

Dr. Gregory.—The vitality of the fetus depends primarily upon the vitality of the mother's blood. If you lower that vitality you lower the vitality of the fetus proportionately. I felt that Dr. Glasgow put the right question, I was on the eve of asking it myself when he anticipated me. How could the child be exsanguinated unless the placenta was ruptured? He asked, was the placenta intact. That is the point. I can not for my life understand how the child could lose blood if the placenta was intact. I feel that the contact of living blood is the life of the fetus, and if you lower the vitality of the child by lowering the blood of the mother then you correspondingly depress the vitality of the child, it deriving its life directly from the blood of the mother. The blood of the mother being subtracted, the vitality of the child is correspondingly subtracted.

Dr. Scott.—It was formerly taught that the hemorrhage came from the placenta, but it is now taught that it comes directly from the uterine sinuses and not from the placenta at all. I think there must have been a rupture of the placenta in the case which the doctor reported.

Dr. Gehrung.—I do not claim that the placenta was intact. I did not see the placenta.

Dr. McPheeters.—What was the condition of the mother; was she prostrated?

Dr. Gehrung.—She seemed pretty much prostrated. I only saw her that evening in consultation; she made a good and rapid recovery, I understand.

Dr. Moses.—The question of the cause of the exsanguination of the child in this case is a very interesting one, and is one which has no doubt suggested itself to many. We know that it requires a considerable amount of rough handling to rupture a placenta that is healthy; it may be separated and still there be no rupture of the vessels. But here we have the mother exsanguinated by loss of blood, and thus she is unable, as Dr. Gregory says, to furnish properly vitalized fluid necessary to stimulate the fetal circulation. The heart's action which is continued by the power of the nervous centres of the fetus expels the blood from the body of the fetus into the placenta, but it is not returned. The placental circulation is partially arrested, and I am satisfied that if the placental veins could have been opened experimentally, there would have been found scarcely a drop of blood passing from them, whereas the artery was undoubtedly acting as an outlet for the fetal blood. I consider that this explains the exsanguination of the child without any necessary external hemorrhage.

Dr. Gregory.—I can not see why the blood should not return unless there was an opening for it to go out of.

Dr. Moses.—The placenta simply becomes loaded with it serving as a reservoir. It does not take many ounces of blood to exsanguinate the child in any instance. As long as the heart beat there is certainly some evidence that there must have been cardiac contents to permit it to beat at all, unless the action of the cardiac ganglia are sufficient. There must have been some contents there. If the heart was absolutely empty I can scarcely conceive that it would have beat for that length of time without some external stimulus. Is it not possible that the stimulus of highly charged venous blood, acting upon the nerve centres is sufficient to act as a direct irritant for some length of time, so as to sustain a certain amount of nervous force. I never have thought of this before but it strikes me it would be possible.

Dr. Scott.—Would we not have had cyanosis in that case?

Dr. Moses.—There was no cyanosis.

Dr. Scott.—If your suggestion of the condition is correct there would have been cyanosis.

Dr. Moses.—Whether there would have been cyanosis or not depends upon the amount of blood which remained. There certainly was diminished quantity. One point that especially struck me was the attempt to resuscitate the child by mouth to mouth insufflation. I was taught that when I was a student, and tried it in a few cases when I began practising medicine, but I was soon satisfied of its utter inefficiency. I think where it acts at all, it simply acts as an excitant of the mucous membrane, and the moment you blow into the mouth with sufficient force, you are apt to have the child's stomach filled with air without getting any into the lungs. I think it a waste of time and a very dirty, disagreeable sort of job too. I have not done it for many years. I gave it up as absolutely useless and ineffective. I have tried the method of swinging the child, as recommended by Schultze, in several cases, and have had very excellent results. It is a very thorough way of carrying on artificial respiration by expanding the chest thoroughly by the elevation of the pectoral muscles. The downward and backward motion permits the epiglottis to be elevated and at the first motion there is a small portion of air at least which enters the lungs, while as the body is raised, it is partially inverted and the flow of blood to the head is aided. I have in several instances had very satisfactory results from the old method of artificial respiration advised by Sylvester. As soon as I get a single full inspiration, I am satisfied. I lay the child upon the right side with the head and shoulders slightly elevated, and do not attempt any further efforts at inflating the lungs unless respiration becomes defective. Ordinarily all that is necessary after the first inspiration is warmth and posture to favor the passage of the blood. It is a well known fact that the heart's action continues for a long time after respiration has ceased. It has even been known to continue for two hours without any evident insufflation of the lungs or attempt at respiration. I have never seen an attempt to explain it.

Dr. Gregory.—Is there not a cardiac ganglion?

Dr. Moses.—Yes sir.

Dr. Gregory.—Is that not the centre from which the force may radiate to the heart?

Dr. Moses.—Yes sir. We see that the heart of some of the lower animals, when taken from the body continues to beat for

some times, and I think we may consider the fetus as nothing more than a parasite; the nervous functions are carried on without the ordinary stimulus of atmospheric respiration which we find necessary in independent life. There is one suggestion I might make in regard to treatment. I intend to adopt it the next case I have, that is, the subcutaneous injection of a stimulant, ether or brandy, ether being preferable. I think it might be beneficial.

Dr. Gregory.—Might not hot water be a good injection into the connective tissue.

Dr. Moses.—It might do very well. As Dr. Gehrung says, transfusion is almost impossible in such a case. There is one point I want to call attention to, and I would like to ask Dr. Boisliniere if he has noticed it, that is whether in case of central, partial, or marginal implantation, in the majority of cases the placenta is not inserted upon the left side. I have seen seven cases and I believe six of them were inserted upon the left side.

Dr. Boisliniere.—I believe I have noticed that.

Dr. Moses.—I have never seen it mentioned anywhere, and it may have been accidental in my cases, but I have noticed it.

Dr. Scott.—I regard it that that child was exsanguinated owing to a rupture of the placenta, and had it occurred in my practice, I should have used stimulants at once. I would not have attempted artificial respiration, because it was already exsanguinated. I would have given it an injection of warm milk, and in all probability I would have put a little brandy in the milk.

Dr. Boisliniere.—Hypodermically?

Dr. Scott.—Yes sir. I differ from Dr. Moses in some points as to treatment in regard to these cases of children which are born asphyxiated, as we would call it. I have had a good many such cases to deal with, and I have used the Marshall Hall plan of getting these children to breathe. I first lay the child down upon a warm cloth before the fire, if we have a fire, and I try by turning it from side to side and drawing its arms upward, and putting my fingers in the child's axillæ, drawing its arms well up over its head then carrying them down gradually, at the same time pressing the child's chest. In that way I use the mouth to mouth method of insufflating the child's chest. I have seen excellent results from this method of treatment. There is a boy now 15 years of age, a strong, hearty, healthy fellow, with whom I worked for three-quarters of an hour before I could get a single breath, and after I

got one respiration I do not stop, but I always keep on until the child cries. I never feel safe until the child does cry. Then I have used the plan recommended by Dr. McDowell of taking the child by the feet and holding its head down and giving it sharp jerks. Of course I do not wish to be understood as criticizing the doctor's method of procedure. We all know how easy it is to criticize the method employed in a case, but we can not appreciate the situation without seeing the case.

Dr. McPheeters.—Was chloroform used in this case, and if so to what extent?

Dr. Gehrung.—Chloroform was not used.

Dr. McPheeters.—Only a few weeks ago I had a child which was still born after protracted instrumental labor; the lady was taken in labor Monday morning and was not delivered until Wednesday evening. I used chloroform moderately for some eight hours, for when we once commence giving chloroform it is very difficult to induce the patient to leave it off. The child was still born. The cord was thin and pulseless, nor could I discover that there was any cardiac action. The child was moderately cyanosed. I immediately cut the cord which bled to a limited extent. I then placed the child in hot water, and applied cold to the chest but no respiration took place. I then placed my left hand under the shoulders with my thumb and forefinger in the axillæ and having carefully introduced a catheter in the larynx I blew into it, while a very intelligent nurse pressed upon the chest from above. This was kept up for nearly half an hour. My rule is not to give the child up short of an hour. Following this rule I have sometimes seen children revive after all hope of resuscitating them has been lost. So in this case after almost despairing, the child cried feebly after working with it for about thirty-five minutes, and respiration commenced. I then laid the child on its right side, applied warmth, and left it, having tied the cord in the meantime. As I know of no reason why this child should have been still born, I am inclined to attribute it to the prolonged use of chloroform which sometimes acts injuriously upon children. I believe that children are more apt to be still born when chloroform is used for a long time than when it is not used, therefore I asked Dr. Gehrung whether in this case chloroform had been used. The moderate use of the drug does not do harm, but I think its prolonged use does affect the child. I see no other way to account for the result in

this case. There was no pressure upon the cord. There was this peculiarity about this case; the morning after the delivery when I entered the room the odor was intolerable, so much that the patient herself complained of the sickening smell of the lochial discharge. The placenta and its membranes were delivered intact, but this offensive discharge coming on at so early a period I thought I would have a case of troublesome septicemia. There was no rupture whatever of the perineum. Antiseptic injection, and antiseptic dressing was at once commenced, and in a couple of days the fetor passed off. I had some difficulty in locking the forceps—some trouble in adjusting the female blade and in every place where there was the slightest contusion of the scalp a tumor rapidly formed and filled up at first with blood; which afterwards became purulent. I also had a sore on my hand the result of poisoning from this offensive lochia.

I am satisfied these abscesses of the child's scalp resulted from the same blood poisoning. Today I was again called to see the child and found it has an abscess on the buttocks. Of course there was no contusion there, but it shows the infected condition of the child.

Dr. Prewitt.—There was probably some pyemia.

Dr. McPheeters.—As there was no pus, it was more septicemia than pyemia, as this offensive discharge shows. I have never seen a discharge of this nature coming on so soon.

In Dr. Gehrung's case I suppose the exsanguinated condition of the mother had a good deal to do with producing this condition of the child, and while there is cardiac action, which is the very condition which we want to produce, I should have been very hopeful, and should not have given up very soon. I agree with what Dr. Moses has said about the mouth to mouth method of artificial respiration. Unless you put in the finger and hold the tongue down it does no good, as the air does not get into the lungs. In this case I had to put my finger in. I introduced the catheter and blew into it.

Dr. Gregory: I recollect that in 1843 I attended lectures at Louisville, Kentucky, under that very distinguished gentleman Dr. Miller, who has written a good work on midwifery, and I remember that he said he did not believe in the catheter at all, that he had seen very skilful men fail to introduce it into the trachea; I recollect that remark very well, he also advised pressure upon

the cricoid cartilage, the object of which was to press down the esophagus. When you blow and press on the cartilage of course the esophagus would close and the air would find its way into the trachea. Dr. McPheeters should have stated that while I held the child's neck I let the head fall back and introduced the catheter guided by the finger in that way.

Dr. Prewitt.—There are some points to which I would like to refer. In the first place I suggested that this child had lost blood through the placenta, but Dr. Scott took me up so short that I concluded perhaps I did not know as much about the subject as I ought to. Now I would like to have a little information. I cannot see why the child might not bleed from the placenta if there was a tearing of the substance of the placenta. And why should we not have a tearing of the placenta in many cases?

Dr. Scott.—We all agree to that.

Dr. Prewitt.—You remarked when I suggested that, that the placenta did not bleed.

Dr. Scott.—Not unless it was ruptured.

Dr. Prewitt.—But how do we know that in many cases it is not ruptured. I see no reason why that might not occur frequently if the placenta be separated from the uterus in the line of junction, as there is a mutual interlacing of the sinuses of the placenta and sinuses of the uterus, and how could we tear a part of them without at least tearing some of the placental sinuses. Dr. Moses suggested that very likely there was extravasation of blood into the placenta itself. Many of you have seen that no doubt; and the blood may become thrombosed in the placental vessels and exsanguinate the child in that way. With regard to the method of resuscitating the child, artificial respiration would be naturally resorted to, and I think the air can always be made to enter the lungs. That is not the difficulty in these cases, there is something wrong about the centres of respiration. Air can be made to enter the lungs, and as good a way as any is to raise the arms up and carry them down, expressing the air from the lungs by pressing on the side of the chest. The remarks of Dr. Gregory in regard to the suggestion of Dr. Miller about pressing upon the cricoid cartilage is very ingenious. It is a difficult thing to introduce the catheter into the larynx, as I venture to say any gentleman will find who tries it. I have tried it in a case where I had opened the trachea below and it was extremely difficult to do it. We are taught to be

careful in introducing a bougie into the stomach not to pass it into the larynx; the difficulty is to get it into the larynx when you want to. Now in Dr. McPheeters' case the child was asphyxiated, and it was cyanosed to a certain extent, and he did a good thing to cut the cord. Of course it bled, and the child was relieved, and that would be a good thing in any case of that kind, but in Dr. Gehrung's case it would have been a bad thing to do if any blood would come from the cord, because the child was already exsanguinated. Still I can not see how stimulants alone would have answered the purpose. It was certainly necessary to keep up artificial respiration in some way. Stimulants are well enough but they act more upon the heart than upon the respiratory centres. If the heart's action had been extremely feeble we might have expected a good result from stimulation—the injection of stimulants hypodermically, but would we stimulate the respiration. Would you stimulate the respiratory centres by injecting whisky or something of that sort into the connective tissue. There is one thing that Dr. Gregory referred to which I do not fully understand: he says the loss of blood by the mother has an effect upon the circulation of the child. It is not exactly clear to me how this could happen, how a loss of blood by the mother could lead to the exsanguinated appearance of the child.

Dr. Gregory.—I could not have stated that the exsanguinated condition of the child was due to the loss of blood of the mother.

Dr. Prewitt.—Apparent exsanguination.

Dr. Gregory.—I said the lowered vitality of the mother affected the child.

Dr. Prewitt.—It seems to me that the loss of blood on the part of the mother, if great, would result in the venosity of the fetal circulation, the oxygenation that goes on in the placenta would be diminished and there would be venosity of the blood. There is one point in regard to these hypodermic injections—use of stimulants that I wish to call attention to. It has been my misfortune to lose a case occasionally from shock in surgical operations, and I have always resorted to the hypodermic injection of ether and whiskey, etc. Whenever I have seen the blood ecchymosed around the point of puncture, I have always seen the patient die. I have never seen an exception. Now why this is I do not know.

Dr. Frank Glasgow.—It seems to me that the gentlemen have lost sight of the question under discussion. It was not whether

this child had lost blood or not, or how it lost it; it was admitted that it had lost blood, but the question was why the heart continued to beat, and what measures should have been taken to save the life of the child. These are vital questions. We know that the heart when removed from the body will continue beating even though it does not contain blood. Dr. Moses claimed it must contain fluid of some kind. We know it will continue beating for some time without containing any fluid. I have seen the heart of a rat beat at least ten minutes without containing any fluid, it being completely removed from the body. Then again it seems to me that the treatment suitable for such a case as this and for one in which there is cyanosis should differ very materially. The proper method to bring about respiration in this case, was to force the blood to the brain. We had a case of exsanguination here, and in such cases what should we do? We should force what little blood there is in the lower extremities and in the body to the brain, and it seems to me that the proper treatment in this case, would have been, not artificial respiration, but stimulation and holding the child up by the heels just as we would in a case of exsanguination. In that way it is probable we would obtain some stimulation of the respiratory organs from the brain itself. The heart was simply acting through the influence of the ganglia in the heart itself and not from the brain. There was no blood in the body to become cyanosed. Consequently I think the treatment might have been much more successful if it had been directed to supplying the brain with blood and not to artificial respiration.

Dr. Boistiniere.—The method recommended by Dewees is to take the child by the heels and shake it, causing its throat to become clear of mucus; the Germans got the thing wrong. The best and superior to the Marshall Hall or Sylvester is the American or Baltimore method: it is to place both hands under the child's back, and bend it over, thus expanding the chest, then bending it forward again; this is to cause air to enter the lungs. To put blood into the brain, the head should be held downward and not upward as the Germans do it. Now as regards the beating of the heart. Brown-Sequard has stated that the presence of venous blood in the medulla oblongata is the cause of the heart's action, and that it will sustain life for a while until other excitants are brought into play, such as the cold external air, or cold water, etc., it is a sort of reflex action. If the asphyxia has lasted a long time, this may

be insufficient. The asphyxia in a case such as the doctor reported is not like that which is present in a case where the child is born cyanotic. The cases such as Dr. McPheeters reported are favorable cases. Whenever a child is born apparently dead which is cyanotic, there is hope of saving it; it shows that the cause of the asphyxia has not lasted a long time; and that the child is not beyond recovery. If a man is buried by an embankment of earth and he is rescued immediately, he is cyanosed, and he can be revived; but if when he is rescued he is pale and the skin apparently exsanguinated, there is less hope of reviving him. He is not pale from loss of blood but from prostration caused by the long duration of the asphyxiating cause. So there are two degrees of apparent death; one of asphyxia, the other of prostration. If a child is born apparently dead, but cyanotic, it will probably be saved, but if it is pale it will almost certainly die. Now about artificial respiration. I think Dr. Moses has condemned the mouth to mouth method too severely. I depend a good deal on it. I am always careful that in breathing into the child's mouth I fill the lungs with air which I have not breathed, but with which I fill my mouth, and I have had good results from this method. I think the suggestion which Dr. Gregory made about pressing on the cricoid cartilage is excellent. I have here an instrument which has been devised by Ribemont for producing artificial respiration; it is a catheter with a peculiar curve, and with a flat part, and it passes into the rima glottidis, very nicely. This is very much used in France.

Dr. Gehrung.—Dr. Glasgow has anticipated me in a few remarks that I wanted to make in regard to some statements made by Dr. Moses. In regard to the heart not needing any fluid in order that it might continue to beat for a long time even after death, we know that is true in animals. Now whether the heart in this case has not approached more or less to that state in the lower animals I am unable to say. I can not exactly understand why the heart continued to beat, even in convulsive movements without much, if any outward stimulation. I stated in the paper that I practiced Schultze's method, keeping the head downward, letting the legs swing over and thus compressed the abdomen. There is one point which nobody seems to have mentioned in the discussion in speaking of the mouth to mouth respiration, that is the closing of the nose, which is a very essential thing, otherwise we would get no air into the lungs at all. We read not unfrequently

of cases, especially where chloroform has been given, where the child, after having been restored by artificial respiration, lives for a quarter of an hour, an hour or perhaps a day, and collapses again, but so far as I know, no attempt has been made to resuscitate it again. I think that is a great mistake. When a child has been revived by artificial respiration, if it sinks again, I think it should be revived by artificial respiration again. I remember a case in which I revived a child by artificial respiration, and thought it would do all right, and went into the next room to see another patient. I was called back immediately and found that the child had relapsed. I again revived it and went back to the other room, and was called back a second time to revive it, which I did, then I stayed with the child three or four hours, and kept it alive by artificial respiration until its father, who was a veterinary surgeon, learned how to practice artificial respiration, and he kept it up for 48 hours longer and the child got well and strong. Not long ago I saw a similar case in which the child had no action either respiratory or of the bowels or bladder. I used artificial respiration and revived it. The physician who attended the case before I saw it was a homeopath, and during my absence the child became apparently dead once more, and he saw it and said it was dead, and that he could not give the burial certificate. I revived the child and cleared out the bowels, and I kept the child alive for many days by artificial respiration, artificial defecation and feeding by means of a stomach tube. The latter means were kept up for about two months by Dr. Mulhall and myself.

The child is now a strong and vigorous boy of one year.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated meeting Feb. 21, 1887, DR. STEELE in the chair.

On motion of Dr. Fry the courtesies of the society were extended to Dr. E. P. Harris of the Indian Territory.

Dr. Jones read a paper (Vid. p. 294) on

SYPHILIS OF THE EAR.

Dr. Todd remarked that the doctor had said very rightly that the great difficulty we have in dealing with the internal ear is deafness,

which after all is about the surest indication of the internal ear cavity being affected. As to the statement of the Glasgow physician to which Dr. Jones referred, that the cochlea may be entirely necrosed and yet hearing be preserved; so a man with an enucleated right eye might see with the left eye. He could but believe that in those cases the hearing is through the other ear.

Dr. Barclay stated that there are animals that emit musical notes and have perception of musical tones and yet have no cochlea. He said he had known of several cases where the cochlea had been lost and hearing retained. The differential diagnosis between a tubercular syphilide and certain other affections about the ear which it resembles has to be made very carefully; especially does it resemble lupus and carcinoma. He himself had recently had in his care a patient with a tubercular syphilide of the auricle where the septum came away. He had operated and so far relieved the patient that he now wears a tube. The canal was entirely healed, his drum was intact and his hearing was restored, and he discharged him with instructions to wear the tube in his meatus, and that surgery had done all for him it could. The differential diagnosis between diseases of the inner and middle ear puzzles men very much in general practice, especially cases of what is called nervous deafness as contradistinguished from those due to thickness in the parts of the transmitting mechanism.

Dr. Todd asked if *Dr. Barclay* saw those cases of loss of the cochlea?

Dr. Barclay said he had seen reports of such cases where the hearing was preserved, and where truthful men, competent to determine which ear does the hearing, so state, he accepts their statements unless his own experience contradicts it.

Dr. Spencer agreed with *Dr. Todd* that it is as much an absurdity to suppose a man can hear with an exfoliated cochlea as to suppose that he can see with an enucleated eye. He don't think it possible to explain these cases on any other ground than that the observer has been deceived.

Dr. Nelson read a paper on

NATIONAL QUARANTINE.

and offered resolutions relating thereto (Vid. p. 209).

Dr. Homan said the constitutionality of such a measure as was proposed by these resolutions had been much discussed, the subject of

state rights being brought forward as a bar to the adoption by Congress of such a step. But the entire body of commercial law, quarantine measures and health inspection laws are derived from the following few words of the constitution, viz., "The Congress shall have power to regulate commerce with foreign nations, and among the several states, and with the Indian Tribes." That is all there is in the constitution relating to this subject. Chief Justice Story in his commentaries on the constitution has defined the word commerce to mean something more than an exchange of goods. He says that it means intercourse, the interchange of travel, communication by passengers to and fro as well as the exchange of merchandise. And upon the basis of this clause in the Constitution the National Quarantine Act of 1879, in consequence of the epidemic of yellow fever in the South was passed. The position was taken broadly that epidemics are public enemies and that it is the duty of Congress to protect the public against dangers of that kind. More recently the Interstate Commerce Act is based upon these words of the constitution to regulate commerce between the states. It isn't a matter that concerns one state, or one port, it is commerce between the United States, and between the whole country and the foreign nations. Of course no foreign nation can recognize the state of Missouri, or the state of New York, or the state of Louisiana. Any dangerous disease reaching New York intimately concerns us in the Mississippi Valley by reason of the speedy communication. In fact a cargo or a number of infected passengers might reach New York and take the train immediately, and the disease not manifest itself at the port of entry, and for that reason and under the view taken by the enactment of the Interstate Commerce Law it is clearly a subject for Federal Legislation.

Dr. Leete thought that if there was a question at any time in the past about the constitutionality of any enactment looking to thorough quarantine, this must have been removed by the discussion of the question of government control over commerce, and if at any time there has been doubt about the necessity for a much more thorough and general quarantine supervision than we have ever had in this country, that doubt must have been shaken a good deal by the report that was made on the New York quarantine by *Dr. Shakespeare* and subsequently by the College of Physicians of Philadelphia. It appears that while the working plan originally was very good, by reason of a conflict between the governor and

legislature the equipment had never been perfected, and the accomplishment had been very defective; and while the New York state quarantine was very bad that of Pennsylvania and Maryland was still worse. The quarantine regulations at New Orleans are very well and liberally managed in the interest not only of New Orleans and the state of Louisiana, but of all who might suffer from objectionable persons, goods, and household goods and materials getting into that port. There can be no doubt whatever that it is clearly the duty of the general government to take upon itself the entire burden of the cost of quarantine and to provide for its administration in the most liberal manner and in accordance with the very best that is now known or shall yet be known in respect of thoroughly cleansing and disinfecting persons, and there belongings so that destructive diseases cannot be spread by means of cargoes of ships coming into this country. At the present time it seems very plain that while they do much to lessen the evils incident to cholera infected and small-pox infected passengers coming into this country, they leave a great deal undone through carelessness and inefficiency, and want of faithfulness, if not want of capability, in allowing persons and goods saturated with diseased germs, to pass and bring cholera into distant parts of our country just as fast as the railroads can take them to their points of destination. The municipalities must take care of their own citizens by doing all of those things which physicians know so well ought to be done in the interest of health, in the interest of keeping the sickness rate as low as possible; and the time will come yet, when the city boards will investigate the question of sickness rates as well as death rates.

Dr. Nelson said his own impression about the quarantine at New Orleans was quite in accord with *Dr. Leete's*, that the only criticism on that quarantine is that it is an imposition on the people of that state and the city of New Orleans that they should be expected to bear the expense of protecting the whole Mississippi Valley from the dangers they are exposed to from the commerce at that port. As for the efficiency of the quarantine as carried on now by the state of Louisiana and the city of New Orleans, nothing more could be asked.

CASE OF EPILEPSY.

Dr. Fry reported a case of a child having a very peculiar convulsion. The child about three and a half years old, if at play,

stops for an instant, there is a sort of imbecile laugh. Then there is a minute in which the muscles of the arm particularly, and of the legs are thrown into a tonic spasm. At this time the face becomes very congested and red, the pupils dilate and the child seems temporarily not quite itself; however it doesn't seem unconscious, and any annoyance such as pinching its face or disturbing it, will be resisted apparently in a perfectly conscious manner, then as the attack passes away the pupils resume their normal size and the congestion of the face subsides, there is again a sort of imbecile titter or laugh. Dr. Harris the attending physician describes it as more like an hysterical manifestation than otherwise. Two days before it had had twenty-five attacks during the day; they came in groups, an attack lasting for half a minute and one following after another very rapidly within a very short time, and having from four or five to fifteen of them before they cease. So much for the attack. As to the cause, last November, the middle of the month, the child fell backwards from a chair and struck its head hard on the floor, and it was very white the following day, and showed other evidences of malaise. About four weeks ago the child was playing and swallowed a bullet that had been shot against a wall apparently and flattened. Within a few hours after swallowing the bullet the child had the first of these peculiar seizures. Last August the child was bitten on the arm by a dog, not injured but simply frightened, the arm was not scratched, although the dog took an appreciable grip on the arm. Again on the day in which these spasms commenced the dog ran at the child and frightened it very much. On examining the nose there is some evidence of injection of the mucous membrane. The prepuce of the child was much contracted, though there had never been any difficulty in passing water; yet, on account of the contracted condition the physicians circumcised the child, and the wound healed very nicely. The child had been on a restricted diet under their care, and there is no apparent intestinal irritation, the bowels are regular and there is no evidence of disturbance of the stomach at all. When the child has an attack, it would be very hard to say whether it is unconscious or not; it is certainly only momentarily so, if at all. He jumps up and runs to his parents when he feels the attack coming on, and it cannot be said positively that there is a condition of unconsciousness.

Dr. Harris corrected *Dr. Fry* in that the time when this bullet

was swallowed was about four days previous to the first attack.

Dr. Bremer said that in his opinion judging from the report of the case the fall was responsible for the attack. This might perhaps be a case of hystero-epilepsy.

Dr. Leete asked if the child was still carrying the bullet in its stomach or bowels?

Dr. Harris said that was not known; but the child evidently swallowed the bullet, because it had the two in its mouth and when the mother asked it to give the bullet to her it put its hand to its mouth indicating that it was down there. She didn't think to notice whether the bullet passed away or not.

MISSOURI STATE MEDICAL ASSOCIATION.

The State Medical Association held its thirty-first annual session in Kansas City, April 17, 18 and 19. It is memorable as being one of the most successful and delightful meetings that the association has ever enjoyed. The attendance was large the first day, not far from 200 members being registered at the outset. Several influences combined to insure this success, not the least being the pains taken by the committee to draw up a regular programme, in which each hour during the whole session had its special occupation. This novelty in the conduct of the meeting promised a business method, that usually has been conspicuously absent, and no doubt secured a greater number of carefully prepared papers besides holding the general interest. While this programme was not absolutely held to in all particulars, still the departures were accidental and did not militate against the full test of the experiment, which will be more fully considered later. President Lutz insured adherence to the programme by committing the association at the first to its support, afterward holding members strictly to its provisions and otherwise proving himself to be an excellent presiding officer. Kansas City itself no doubt attracted many who wished to see with their own eyes, the prosperity and rapid growth of this typical western railroad centre. A shower on the first day settled the dust and cleared the air, so that visitors might see the sights without drawbacks. It is well worth a journey to study the face and behavior of this stirring place. The writer had visited Kansas City in its early years, before the railroads had chosen it for their

rendezvous and placed within its hands the commerce of a vast territory daily waxing in wealth. Then it was—well, a frontier village, big in bluffs, bray, and dirt; a place to be forgotten as soon as seen. To-day let us stand at one side of the cable road incline looking off the top of the bluff over the Kaw valley. There is “the promise of wealth beyond the dreams of Avarice.” The wide flat glitters with shining steel, the warp and woof of the city’s fabric of riches, across which fly the busy shuttles with a constant din bearing backward and forward the golden threads of her traffic. An elevated railroad whirls the passengers over the flat to the shore of the Kaw, giving him a nearer inspection of the factories, elevators, packing houses etc., that crowd the bordering territory. Back from the bluff, away from the confusion of the railroads, the city proper extends with many ups and downs, but irregularities insure good drainage and fine building sites; besides, they afford a silent but frequent admonition to the recklessness of the risks in business-life attending excess in speculation. If stones may preach sermons, why not a steep hill that compels a thoughtful gait and a saving pause at the top.

But we cannot undertake a catalogue of the matters of interest obvious in Kansas City. The hearty hospitality of its physicians, charming weather, and its great material achievements effected and going on, all together constitute a memory whose agreeableness will only strengthen as the occasion falls back into the past.

So many excellent papers were presented that even an enumeration of all would take too much space: the time was more than fully occupied. Several of the most valuable papers will appear in the *COURIER*. According to the programme the usual discussions were deferred until six or more papers (limited to 20 minutes each) had been read. This innovation demonstrated itself as a failure, absolute and complete so far as securing discussions were concerned. The experiment was given a thorough trial, and such was the general verdict. It was found that the audience wearied of hearing paper after paper in uninterrupted succession, and when the time for discussion came there was none. Of course, the session so far as papers were concerned, consisted in hearing essays read that later would be printed in the transactions. One most noticeable event was the unanimous expression by the association of a determination to adhere to the resolution previously

adopted, not to register as associates parties not duly accredited by their local societies. If the association has any object in life at all at the present time, it is to bring about medical organizations throughout the state. This end can only be effected by affording the local societies every possible aid and by securing the establishment of societies where such do not exist. The whole object of changing the place of meeting over the different sections of the state, is to strengthen the hands of the physicians in every district. Such an essential mission can only balance the inconvenience that often attends the operation of that policy. Require a solid official credential from every applicant for registration, let that be a *sine qua non* in every case.

In his excellent address the president specially dwelt upon the advantages flowing to the profession from the better organization of the state, through the efforts of the state association. The new anatomy act passed by the last legislature and now in most satisfactory operation, as explained by the chairman of the committee, is a notable illustration of the effectiveness of the machinery of the association. The president referred to the State Board of Health, also a creation of the association, and dwelt upon its various features bringing up points that need a special article for their proper consideration. He particularly suggested that strict adherence to purely sanitary matters might secure the board greater success.

The COURIER representatives were present to report the meeting in full. But as intimated above, such report would be merely an enumeration of the papers as read and the names of their authors, the discussion of scientific matters amounting to very little.

Were there a probability of such an abundance of papers at the next, or after coming meetings, some arrangement would certainly have to be made for a more satisfactory discussion of them, we heard it suggested, that the propriety of temporarily dividing the association into two sections, a surgical and medical, should be considered in the event of another meeting so crowded with scientific work.

The success of the recent meeting demonstrates as does every other successful project of the kind, how very much depends on the individual activity of the officers. We hope the new officers will show no less than their immediate predecessors.

The banquet on Wednesday evening, certainly deserved to be called a grand affair. There were fully three hundred present, fil-

ling to the utmost the largest suitable hall in the city and the large dining-room of Centropolis hotel. The profession and citizens of Kansas City, did themselves much credit in the elegant spread, fully sustaining their widely known reputation for enterprise and push. To the initial toast, the state of Missouri, President Laws of the State University responded and was followed by speakers on topics suitable to the occasion.

The total number of names registered was 270. The officers elect are: President, A. W. McAlester, Columbia; Vice-Presidents, J. D. Griffith, Kansas City, J. H. Britts, Clinton, H. C. Dalton, St. Louis, J. B. Winn, Macon City; Recording Secretaries, J. C. Mulhall, St. Louis, J. H. Duncan, Kansas City; Treasurer, C. A. Thompson, Kansas City. The next place of meeting is Springfield, which was manifestly the choice of the majority of the members present.

The special committee appointed to consider and report on the suggestions and recommendations of the president's address at the recent meeting of the Missouri State Medical Association, reported through their chairman, Dr. H. C. Dalton, of St. Louis, the following resolutions, which were unanimously adopted:

WHEREAS: The experience of the past has shown that existing means relied upon for the protection of the people of the United States against the introduction of dangerous epidemic diseases from abroad, are entirely inadequate to accomplish the desired object: and

WHEREAS: It is highly desirable, in order to insure such protection, that the measures employed shall be uniformly and systematically applied, therefore,

Resolved, 1.—That in the opinion of this Association external quarantine measures should be under the control and direction of Federal authority to afford the highest degree of protection to the people of this country.

Resolved, 2.—That this Association favor Congressional action looking to this end, as in their judgment there is present urgency for such legislation.

Resolved, 3.—That copies of these resolutions be promptly forwarded by the secretary to the members and senators of this state in congress.

Also the following were passed unanimously:

Recognizing the importance and value to the people of this state

of a body clothed with official authority and provided with adequate financial means to enforce existing laws for the protection of the public against disease, the prevention of epidemics, and the furtherance of all wise measures designed to secure the sanitary welfare of the people of this state, therefore,

Resolved, 1.—That reposing confidence in the wisdom, patriotism and ability of the State Board of Health as displayed in the midst of adverse circumstances this Association approves the course and conduct of the board, and pledge to its support in its work the influence and authority of this body.

Resolved, 2.—That the members of this Association pledge themselves to actively exert their influence in their respective localities during the coming year in favor of legislative action in support of the board, and to enlighten the representatives in the general assembly regarding the wishes of the Association in this respect.

Resolved, 3.—That a committee of three members on sanitary affairs be appointed by the president with power to sit during the ensuing year, and advise with the board in all matters concerning needed legislation for the more perfect protection of the public against disease.

Dr. F. J. Lutz, of St. Louis, Dr. J. E. Tefft, of Springfield, and Dr. B. G. Dysart, of Paris, were appointed members of the committee created in the last resolution.

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS will meet in Cincinnati on the Monday evening preceding the meeting of the American Medical Association. There will be an address by the president, Dr. William Porter, of St. Louis, one of the editors of the "*Weekly Medical Review*;" and the following questions will be discussed: "Is the Multiplicity of Medical Journals an Advantage to the Profession?" and "How far do Medical Journals distributed by Drug Houses and Manufacturers interfere with Regular Medical Journalism?"

PRIZES OFFERED BY THE NEW YORK MEDICO-LEGAL SOCIETY.—We have previously noted the offer of prizes, \$100, \$75 \$50 for the first, second, and third best essays on "any subject within the domain of medical jurisprudence." By a recent action of the society the time for this competition has been extended to June 1, 1888, on or before which date all essays designed for the purpose should be in the hands of the president of the society, Clark Bell, 57 Broadway, New York.

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ORIGINAL ARTICLES.

THE OUNCE OF PREVENTION.

BY GEO. HOMAN, M. D., ST. LOUIS, *Professor Hygiene and Forensic Medicine, St. Louis Medical College.*

[*Read at the Thirty-First Annual Meeting of the State Medical Association, Kansas City, Mo., April 17-19, 1888.*]

THE importance of the element of precaution in all the affairs of life is popularly recognized in the common saying of which the title of this paper is a part, which is completed by the added statement that it is worth a pound of cure.

Perhaps through much repetition of this saying in connection with almost every human contingency the truism has lost to the ear some of its native force and value, and does not always strike even the medical mind with the sharp impact and clear delineation that should attach to it as a popular proverb weighted with a world of truth. But imperfect though the application and impression be, there can be no doubt that in a public health sense prevention or precaution on the part of communities and peoples is the beginning of wisdom; and my design is to try to aid this beginning by endeavoring to show how profitable it is to the public, now and always, and further that it is a gain and not a loss in a business sense to physicians.

If in the founding and progressive development of the towns and cities of this state there had been always displayed wise forethought and consideration of how diseases might be spared to coming generations of their inhabitants, how different might be the tale of our mortality returns of city and town populations, imperfect and fragmentary as the best of them too often are; and how stupendous would be the sum total of the cash value of human life needlessly lost then and now through ignorance or mischance, for which in large part those in authority are responsible. The people perish for lack of knowledge it is true, but this lack is curable,—their own ignorance being an influential factor in the result, from which it follows that public health work is largely educational in character.

But in the rush and fever of city-making, a fever that may be seen in its best or its worst aspects—in whichever sense you may choose to take it—in this bustling emporium where we now meet, how many, in the midst of the ant-hill moil and stir, pause to consider the miasms and pestilences that are being stored up for coming generations; the domestic scourges perpetuated that shall bereave families and households yet to be; the population infections transmitted that shall gnaw at and consume the sinew and fibre of industrial and laboring classes with insidious and perpetual wasting, and for a great part of which we of to-day will be responsible.

How much of what the people of the present time suffer in preventable sickness and death is due to bequests of hoarded infection coming down from former generations! In many things no doubt our forefathers builded wiser than they knew, and in the avoidance of causes of disease it may be they builded to the limit of their knowledge, but can or will as favorable a judgment be formed of us by those who follow half a century hence? and upon whom will fall the burden and grief and loss wrought, not so much by the ignorance, as by the carelessness, selfishness or recklessness of the present generation.

It may be the inexorable law of nature that the course of human progress, of pioneer effort and rising enlightenment, shall be marked by human bones; but whoever gazes backward over the course of our march must note the shocking excess of young

bones over old bones,—of bones culled from among the choicest of childhood and youth and adult life rather than from the veterans, the worn-out, the superannuated of the human race; those who have borne their share in life's work and have fallen at last under the accumulated weight of years.

During 1886 and 1887 there were about 1850 deaths from diphtheria and scarlet fever combined in the city of St. Louis, a vast proportion of the decedents being under twelve years of age. These diseases rank among the peculiar scourges of infancy, childhood and youth; they are recognized by sanitarians as being among the avoidable population infections and largely amenable to preventive measures intelligently applied.

During the same years in the same city there died about 1750 persons from consumption, and 240 from typhoid fever; and of these there were few who had not reached maturity, by far the greater number perishing in early adult life, when their productive value to the State was greatest.

Now just what may be the cash value of these nearly one thousand adult lives lost yearly in a single community is a somewhat difficult problem in political economy; the law places the value of a life lost by the neglect or fault of another at \$5000; but to be more moderate in figures it may be supposed if all these people had had black skins, and the time were thirty or more years ago, they would easily have commanded five hundred dollars apiece, slave market quotations. This basis of calculation would show a yearly cash loss in human life of half a million dollars from two diseases only—a large proportion of which loss is avoidable by preventive measures—and that the estimated value given is extremely low is shown by the fact that if the wage earning capacity of such a body of people averaged only fifty dollars each per year the total would amount to ten per cent of the half million, or \$50,000 annually.

This estimate, moreover, takes no account of losses from inability to work due to sickness of which the fatal ending was the consequence, during which illness the doctor is usually in attendance, and which period in typhoid fever is rarely less than one month, and in consumption seldom less than a year.

In political economy, likewise, there is a money value affixed

to the life of every child, even at the breast, but it is somewhat more difficult to ascertain this value than in the case of adults. However, I was once told by a mother, who was the wife of a professional gentleman that in her experience every baby cost \$500 the first year of its life, and she was well qualified to give an opinion, having had ten little experiences of this kind herself.

The diseases named as being so destructive to young life usually kill quickly, in this respect in an economic sense differing favorably from the specified affections more peculiar to adults, and generally not entailing the financial expenses incident to diseases of long natural duration.

In comparison with the extremely low partial estimate given of the value of life lost yearly in St. Louis—the sum of which would reach millions if the total preventable deaths and disease could be ascertained—a glance may be taken at the public money spent in prevention, directly and indirectly.

While the money spent in extending the water and sewer systems contributes decidedly to the sanitary benefit of the people, and while a portion of that expended on the police force may be so reckoned, inasmuch as many dangerous nuisances are reported and abated in consequence, still the appropriated amount of revenue applicable to prevention of disease, that is, to work intended to immediately lessen the amount of sickness and death occurring in the tenements, households and families, is absurdly small. If the value of avoidable deaths and sickness per year in St. Louis be placed at one million dollars, it is doubtful if the half of one per cent of that sum is expended directly in work of sanitary precaution. And very much of that which is done consists in the undoing of previous bad work, or correcting the mistakes of former years; and it is self-evident that such mistakes are of the most mischievous and costly kind as regards population health, operating continually among the people with cumulative power for distress and evil.

I have instanced the city of St. Louis in this connection for no invidious reason, but only because of the fact that a public health service has been in existence there longer than in any other place in the state, and that the possibilities for good of such a service, and its value to the public if properly supported financially, may

be shown there on a larger scale than elsewhere within our boundaries.

A homely proverb says that our best friends are those who tell us of our faults and teach us how to correct them; and carefully kept official records of causes of death and kinds of sickness occurring in a community are monitors whose sanitary value cannot be overestimated. Indeed, in no other way can the extent of preventable mischief be ascertained, and the proper remedy determined and applied; and it follows that sanitary organization is the first necessary step to this end in any town, city or state, that desires to know the honest facts in regard to its condition, however unpleasant and uncomplimentary they may be.

This will doubtless sound to many who are present like the echo of a thrice told tale, when the years of effort expended by many members in this direction are recalled, but in no state is reiteration of this statement more needed than in Missouri, where, outside of the principal cities and towns, organized active public health work is scarcely known.

That such a condition of things should be does not comport with our pretensions to learning, to attainments in knowledge, to civilization, for the degree to which preventive medicine obtains in a given community is a not unfair index of public intelligence and enlightenment. And as members of an enlightened and advancing profession we are scarcely living to full purpose if we fail to understand that antiseptic measures as now applied to the individual are but a partial development and application of a system of preventive medicine that should include whole populations in its beneficent reach and compass.

If the people of Kansas City to-day are heedlessly planting deep and wide the seeds of diphtheria, scarlet fever, consumption and other preventable plagues that shall rise up to smite coming generations—as has been the case in St. Louis and elsewhere—through failures and oversights in household and public drainage, or mistakes in the preparation of building sites; if they do not provide suitably for a clean, dry soil, pure water, and pure air, they are bestowing on their descendents an inheritance of sanitary evil for which the sober intelligence of mankind

will not hold them guiltless when children shall needlessly perish, and strong men sicken and languish from ills that should not be.

It is sometimes suggested that if the full fruit of prevention were reaped the occupation of physician would be gone, but the more the matter is considered the more am I convinced that there is no soundness in this view, for the reason that the vast burden of loss from preventable disease falls mainly on the poor, on the laboring and industrial classes. What physician ever received full compensation for services rendered in such diseases, and what proportion of the compensation received was in the form of checks on banks?

The vast majority of such debts are paid out of the daily or weekly wages of working people, comparatively few of whom have accumulated a surplus above their daily needs.

So it is not the real diseases, the diseases that prevail chiefly among the poorer classes, the preventable diseases, that broadly speaking pay the physician, but rather the more or less fancied ailments of higher life.

By preventive measures among the population most liable to disease, their wage-earning power is increased and made more constant, and their ability to pay adequately for medical aid is increased in proportion.

But far above any narrow business or selfish pecuniary consideration rises the natural right of those born into the world to health and years—it is a right which to the credit of mankind is being recognized more and more as time progresses. The coffin makers have ridden in coaches while those just as good, and whose expectation of life should embrace lengthened years, have ridden in hearses. More idleness to the undertakers and less work for the diggers of graves, large and small, must in time surely come from the labors of physicians and sanitarians who see the drift of modern medicine; and, thus seeing, in provident work and wisdom speed the time when prevention and not cure will be the test of professional learning and skill, with all the measureless benefits, economic and physical, that must flow therefrom to generations yet to be.

PARAMYOCLONUS MULTIPLEX, WITH THE REPORT
OF A CASE.

BY FRANK R. FRY, A. M., M. D.

[Read before the Mo. State Medical Ass'n, Tuesday April 17, 1888.]

PARAMYOCLONUS multiplex is the name given by Friedreich to a spasmodic affection of the muscular system, with an assemblage of symptoms that appear to be characteristic and to have appeared sufficiently often to warrant a special description and disquisition.

The number of cases thus far reported is very limited. Including the one I am about to report I have seen mention of only ten cases, most of them from European sources. The spasms are bilateral and symmetrical. They are limited to certain groups of muscles. In nine of the ten reported cases the quadriceps femoris and flexors of the leg, and the upper arm group of muscles were affected. In eight cases the muscles of the back were involved, in six cases the muscles of the neck contracted, in six cases the glutei, in four cases the face and diaphragm. In no case have the muscles of the hand or forearm been affected, except to the limited extent reported in my case. The most noticeable feature is the usual limitation of the spasm to the muscles of the trunk, thighs and arms. The spasm is not a sudden, single, irregular muscular contraction like that of chorea, but appears always to be bilateral and to involve several muscles of a physiological group at once, resulting in a series of movements, all of which can be voluntarily made. Occasionally during the clonic spasm in one group of muscles, tonic contraction will occur in some other muscle or group of muscles. The clonic contractions continue, when once set up, for a time varying from one half minute to several minutes—about ten, and are succeeded by an interval of entire freedom from spasm.

In the majority of cases thus far observed tapping of the tendons, or irritation of the skin anywhere, was sufficient to produce a spasm. In none of them have consciousness, motion,

sensation or co-ordination been affected. In the majority of cases electrical excitability has been reported to be normal, mine being the only case in which it is recorded as increased. The knee-jerk has been increased in five cases, was less in one, and not recorded in the remainder. Voluntary effort stopped the spasm in four cases, and made it worse in four. The spasm has ceased during sleep in five cases, and is reported to have continued in one.

Without further synopsis of the characterizing features of this affection, I will give the clinical history of a typical case which will serve to impress them more forcibly on our minds:

Minnie R., aged 30 years, single, sewing-machine girl, living at 2009 S. 12th street, St. Louis, Mo., applied at the clinic of the St. Louis Medical College, Jan. 9, 1888, stating that she was troubled with a shaking and jerking of the extremities, especially of the lower.

As she sat in a chair the heels of her shoes kept up a great clatter on the floor. I grasped one of the knees, thinking to hold the foot to the floor and thus stop the shaking or tremor. I was surprised to find that all the force I could command was not sufficient to do so. I felt of the lower extremities under the clothing, and found the muscles of the thighs in a condition of marked clonic spasm. With intervals of a few minutes this peculiar spasm repeated itself a number of times during the short while she was before the class. I saw her again the same day, when she had a more severe attack. She made a determined effort, at my request, to restrain the movements. Not only was she unable to do so, but the effort caused a very appreciable general fatigue. At this second interview there was an involvement of the muscles of the right shoulder and arm, consisting of an occasional rapid abduction and adduction of the arm that disappeared with several jerks of some of the shoulder group of muscles.

Late in the afternoon of the following day at her home I witnessed her have an attack of the following description: The first intimation of the attack was several deep sighing inspirations, immediately followed by a violent spasm of the flexors and extensors of the thighs, causing them to be thrown rapidly up and

down so that as she sat in a chair the feet tramped the floor with much force. Her mother and sister at once assisted her to a large reclining chair, and placing a pillow on another chair, lifted her feet onto it, remarking as they did so, that she hurt her heels in the hard attacks unless they were thus protected. She was immediately seized with another violent paroxysm. Her lower extremities were thrown up and down as she lay in a semi-reclining position so that the heels struck the pillow with much force, and except for the protection that it afforded would certainly have been much bruised. Her body was jostled about in the chair by the violent contractions of the gluteal and other muscles of the pelvis and thighs. With all the strength I could put forth I was unable to hold either one or both of the extremities down on the chairs. During the attack I rapidly loosened and removed most of the clothing from the upper part of the body, and passing my hands over the muscles of the abdomen, back and shoulders, I felt them at different times in a condition of clonic spasm. There were every few moments violent movements of the respiratory muscles, making the respirations appear distressed, but she at no time complained of difficulty in getting her breath. Occasionally the spasm of the arms, especially of the right, was quite as rhythmic and almost as violent as that of the thighs. The seizure lasted in varying severity for about ten minutes, passing away gradually, with occasional jerks of some of the muscles of the thighs and arms. When it was gone she was much fatigued, saying that if we would only let her alone, she could drop off to sleep. During the whole attack I saw no spasm of either leg or foot, forearm or hand. I watched this point very carefully, having refreshed my mind on the characteristics of paramyoclonus multiplex by reading again before I witnessed this attack the article of Dr. M. Allen Starr, in the *Journal of Nervous and Mental Diseases*, July, 1887.

There was no distinct spasm of the muscles of the neck or face, but toward the end of the attack there was a tremor of the jaw, which I attributed to her exhausted condition. She had had during the day five or six such attacks as the one just described.

Dr. Henry W. Hermann, Professor of Diseases of the Nervous System, in the St. Louis Post-Graduate School of Medicine, saw

the case several times and presented it to his class. I have asked him to furnish a description of one of the attacks that I might present it along with my own. This he has kindly done as follows, it being a description of an attack of moderate severity : "While sitting in a chair the patient executed a tramping movement with her feet, of considerable rapidity, bringing them down alternately, and toward the close of the attack simultaneously. With a few slower kicks, then with a few jerks in the right arm, and a few deep inspiratory sighs the attack ended, lasting a few minutes, to begin again in a little while. She evidently had no control over the movements and felt very much exhausted after them. There was no symptom of hysteria. The muscles implicated were those of the hips and thighs, those of the right shoulder and arm also participating slightly. Only once did I see a slight flexion in the hand. The left arm was quiet and only rarely participated, I was told. There was no disturbance of the sensibility, no paralysis, except slight weakness, accounted for by the exhaustion. The patellar tendon reflex was exaggerated, co-ordination good and the mind clear."

The patient's statement, recorded Jan. 12, 1888, is as follows. Her health has always been excellent; she never has suffered from headache or any other form of nervous trouble; her menstruation has always been normal and regular. The family history, gained from the patient and her mother, is unimportant. She has been continuously engaged in running a sewing machine for the past twelve years, most of the time on heavy work, much of the time averaging ten and often twelve hours a day. Several years ago she formed a habit, which she has continued, of placing the left foot in front of the right on the treadle. On account of this position the left extremity did most of the work. [Until recently the attacks almost invariably began in the muscles of the left thigh.] About Oct. 1, 1887, she had the first attack. While at work her lower extremities were suddenly seized with a jerking. Then followed an attack of the usual description, that lasted several hours, leaving her much fatigued. She arose on the following morning, feeling very tired, but went to her place of employment and worked all day. She had no more attacks for two weeks, when she again had a hard one.

From this time she had them occasionally, the intervals of time between them constantly lessening. She continued at work, losing an occasional day or two. About Dec. 20, she had the most violent attack she has ever had. Since then she has not been able to work except on portions of one or two days. The attacks have continued to come every day, and on many days frequently. Excepting a general lassitude she feels perfectly well and comfortable when free from attacks. On Christmas day a severe attack seized her when standing, and she almost fell before she could grasp a support. This is the only occasion on which this has happened. She always feels a slightly distressing, drawing sensation at the pit of the stomach and a general weak, faint condition that prompts her to immediately sit down before the jerking begins. She thinks the attacks come harder if she is excited, annoyed or hurried. After them she feels much exhausted, and at times in this condition cannot resist a crying spell. In some instances there is an almost irresistible desire to sleep following a hard attack.

Present condition, April 6, 1888. The severity and number of attacks have very gradually, but almost uninterruptedly, diminished. During the past week she has had three seizures of considerable severity, the only ones of the kind for five weeks. Prior to this she had gone three and four days without any attacks at all. Her health is not as robust as before the attacks began, but she has lost only slightly in weight, eats and sleeps well, and when free from the attacks feels perfectly well. She has taken hyoseyamine, chloral, bromides, morphine and antipyrin separately and in various combination. Chloral seemed more effective than any other remedy used. Hyoseyamine evidently had some effect in arresting the attacks when first employed. Antipyrin seemed to have an equal effect. The bromides seemed useless or nearly so. Morphine was used but little and in combination with some of the other remedies. She also has received several courses of arsenic, each time continued until decided evidences of its constitutional effects were present.

The patient is of medium height, well nourished, with an unusually good muscular development, especially of the lower extremities. There is no evidence of organic disease of any de-

scription. There is an increase of galvanic and faradic excitability of the muscles of the extremities, especially the lower, no qualitative changes; exaggerated knee-jerk, occasionally a decided ankle-clonus. There are no disturbances of sensation or co-ordination, or evidences of hysteria.

The patient has been under my observation since Jan. 9, 1888. I have seen her have many attacks, varying in severity from the one described above to a slight tremor of the lower extremities, with an occasional jerk of them and of the shoulders. Twice only I have seen slight spasm of some of the muscles of the right forearm. Dr. Hermann also observed this in one of the attacks that he saw. According to her own statement it has occurred very seldom. Until the last week I had never seen any spasm of the legs. Then I found, in one attack, the muscles of the left calf in active clonic spasm. She called my attention to the fact, and stated that it had happened for the first time two days before, and she was much distressed over the fact of the "jerk-ing" coming in a new place. I have never seen any involvement of the neck or face. The attack always began with a rapid rhythmic movement of the thigh. I have almost always been able to induce an attack by a sharp blow on the thighs, or on the patellar tendon, or often by several quick dorsal flexions of the foot. Twice she has had hard attacks immediately on getting into a cold bed.

REPORTS ON COLLECTIVE INVESTIGATION OF PHTHISIS PULMONALIS.

BY B. F. HART, M.D., BROWNSVILLE, MO.

(Read before the *Missouri State Medical Association*, April 17, 1888).

COUNTIES responding to circulars recently sent out to leading physicians in the various parts of the state, asking them to refresh their memories, consult their records for the past five years, and answer certain question submitted, are, Audrain, Newton, Saline, Cass, Jackson, Clay, Buchanan,

Davis, Caldwell, Andrew, Livingston, Carrol, Putnam, Chariton, Macon, Boone, Warren, St. Charles, Adair, Scott, Madison, Cooper, Jasper, Dade, Vernon, Bates, Johnson and Pettis. These counties give a fair showing for the state at large, located as they are over nearly all its territory. The object sought in this report is to give expression to the individual experience of the respondents as far as it was possible to do so and to give to the whole subject a practical turn. In many places doctors have combined to make a report.

First. Is pulmonary consumption on the increase? Fifteen respondents answer no, nine say yes, and four have no data from which to determine. Two who answer no for whites, declare that it is decidedly on the increase among blacks. One thinks there are not more than one-fifth as many cases now in his locality as there were sixteen years ago; while another is impressed with the belief that as malaria disappears tuberculosis occupies the field. This latter supposition must surely be erroneous since the dryness of the soil upon which the disappearance of malaria depends, is also detrimental to the tubercle bacillus.

As to whether this terrible disease which numbers on its roll-call hecatombs of victims annually, and in whose presence medical men stand paralyzed because unable to cope successfully with it, is on the increase, stand-still or retrograde, is a question of momentous interest to the profession and the people as well. Indeed, no other disease in this country at least, can lay claim to so large a share of attention, since the death-rate from this fell destroyer is about one-seventh and a half of all deaths occurring. It seems hardly possible to realize such a fearful mortality from one disease. And this is because they drop off so quietly and without epidemic influence, it appears as a matter of course, and fails to arrest attention so much as other diseases of far less consequence. People have become resigned to their fate, and medical men but sadly repress their chagrin and disappointment at the failure of medical resources.

Unfortunately it is difficult to determine the exact status of the disease because of the want of statistical information. On consulting old authorities of fifty years ago, it will be seen that

the large cities in the United States were then reckoned to lose from one-fifth to one-sixth of their population by this disease. From some statistics taken during the past year the ratio still remains about the same. The last census fixes its ratio at about one-seventh and a half; but in this estimate the entire country is included, and there is a marked decrease in the sparsely settled states of the West and especially in agricultural districts. Fothergill says after much investigation that consumption and Bright's disease is the penalty attaching to city life.

A late estimate places the deaths from phthisis in Paris, France, at about one-fifth. Since the discovery five years ago of the bacillus tuberculosis by Koch, there has been a wonderful interest manifested and a determination to thwart its ravages by the profession all over the civilized world, as shown in the many papers on the subject presented to all medical associations, and the investigations made by the ablest scientists in all lands. Flowing from all this united and continuous effort the confidence is strong and abiding, that great and permanent good will come. Sanitary science is waking up the world to the interest of preventive medicine as was never known in any other era of its history, and the outcome of all this intensified onslaught is bound to checkmate the ravenous bacilli, and break their terrible grip on humanity.

From the best lights on the subject it appears that the majority report here given is a fair expression of what is going on elsewhere, and that the bacillus is no more than fairly holding his own; and yet if inheritance is such a wonderful factor as has been supposed, it is remarkably strange that even greater inroads have not been made.

Second. Have you noticed evidences of its contagiousness? Nineteen say yes, one that it looks that way, and eight answer no. Many instances are given of husband and wife, parents and children, brothers and sisters, and nurses in attendance continuously upon the afflicted, wherein the circumstances of attack look quite suspicious. Many of these persons had no predisposition to the disease so far as known, and were not subjects of heredity. One, however, declares the disease was not con-

tracted, although the opportunities were peculiarly favorable. Difference of opinion on a question like this is nothing more than what might naturally be expected, since all persons do not investigate with the same care, nor see things from the same stand-point. But it is certainly a little remarkable that such a large proportion of the profession as these answers indicate, should be brought over to the contagion theory in so short a time. It shows a wonderful and radical revolution in the minds of medical men. Only five years ago but few could have been found in this state entertaining such views; perhaps, none who would have been willing to make the declaration unqualified. Everywhere the profession are changing their minds in reference to the causation of the disease, are reasoning from cause to effect, investigating, and drawing the cordons tighter and tighter around the cause of so much death and suffering. Seventeen years have passed away since Dr. Condie, of Philadelphia, published an article looking in this direction, in which a number of cases were related that seemed to be unaccountable except on the hypothesis of contagiousness; yet he was not willing to risk his reputation in its advocacy. He then stated that the question of contagiousness was not only not recognized, but was ignored by the profession in England and America. For a great many years the people and many leading physicians of certain portions of France, Italy and Germany, have held steadfastly to the idea of its contagiousness. So thoroughly were they imbued with this notion, that it was a universal custom to burn the bed on which death had released the sufferer. In those older countries it has been a greater plague than in this, because of the denser population and more extensive intermarrying. Since it has been indisputably established that the bacillus tuberculosis holds the relation of cause to this disease, it is next to impossible to withhold consent to the contagious theory. Of course it is quite plain that it is not contagious in the sense that measles and small-pox impress their claims for recognition. All the disease-producing tribe of bacteria have their laws of being and their relations to other things as well and as sharply defined as that which characterizes the higher grades of existence. And just as some birds are adapted by their natural con-

formation to live both on water and on land, while others are confined to but one element, and of reptiles the same is observed, so the conditions necessary to bacterial life and propagation are no doubt widely different. Hence it is not strange to find bacteria entering the human body—which if from another body means contagion—through different channels and under other circumstances sometimes quite the opposite. It is most evident that they have no great facility for acquiring a human abode or that the great majority of mankind are insusceptible to their action; otherwise they would have long since depopulated the world. Both of the above suppositions are probably correct.

Third. Is the apex of the lung always affected primarily? Six answer affirmatively, nine that it is generally the case, eleven say not always, and two are not prepared to answer because cases have been advanced when they were called. Experience of one is that the apex of the right lung is most frequently affected. One is of opinion that the apex is the first seat when resulting from heredity, and not so when the result of other causes. Another answers yes, to all patients seen with one or two exceptions. The lower portion of the lungs is mentioned as having been affected primarily in one or two instances. That deposition takes place sometimes in the lower part of the lungs first, is no doubt correct, and that these cases are not due to heredity is also probably true; but such cases are the exception to the rule, and are very infrequent. Most competent observers in all countries have agreed that the apex is the first to be attacked in nearly all cases. And it is about as affirmatively settled that the left apex suffers from the first onset in the majority of cases. The reason for the exceptions to this rule, no doubt, is found in the favorable condition for the deposition of the tubercle bacillus left in some cases of pneumonia involving the lower lobes. When the lung remains hepatized for a long time after pneumonia, thus preventing a free circulation of oxygen and blood in the air cells, there are strong reasons for believing that such a state favors development in that locality. There must be a reason why the apex should be first involved; and the solution of this question is of much importance, since it gives the key, it is believed, to the prevention, if not the cure of many of these cases.

Every one at sometime or other is doubtless exposed to the disease, yet only about one-eighth is attacked. Why not more? It must be owing either to insusceptibility, or that in those persons who escape there are conditions favorable to the dislodgement of the cause. An examination of the anatomy of the lungs and thoracic walls, reveals the fact that the upper portion of the lungs for several reasons are much cramped in this latter respect. The upper ribs, clavicles, and upper portion of the sternum are found to be not elastic, and are immobile to a great extent.

Respiratory mechanism tends to enlarge chest capacity in the lower portion of the chest both laterally and antero-posteriorly by virtue of the angle at which all the ribs after the third are related to the sternum, together with the elasticity of the cartilages. The two upper ribs having no such angle, but being united almost at right angles with the sternum, have little motion comparatively in respiration. The clavicles, too, hold a fixed relation almost. Owing to this arrangement the air-cells in the apex of the lung are not so well dilated as they are in the lower portions where each inspiration fills them with the vivifying antiseptic oxygen of the air. But this is not all, for examination shows further that the conformation of the bronchi tends to produce the same effect. Those bronchi leading to the upper portions of the lungs pass off at rather acute angles tending upward, and of course the air in its downward surge would necessarily tend to move in a straight line and consequently flood the lower part of the lungs to the neglect of the upper. This seems to be self evident. As the result of the anatomical disposition, the air-cells in the apex are compressed and many of them collapsed, the mucus and other secretions find no vent, and the air no inlet, thus furnishing a harvest home for the bacillus to get in his deadly work unmolested. This looks most reasonable, and is believed to be the solution of the question, why is the apex primarily affected. Looking in the same direction, is the further fact that the left bronchus is longer than the right, and placed at a greater disadvantage, besides the large blood vessels pass over and no doubt compress it unduly at times, and hence it is an admitted fact by competent observers that the left apex is more frequently attacked than the right. The les-

son of a practical nature drawn from this is that in proportion as man bears himself erect, with head thrown back, fully developing chest capacity in all directions, will he be exempt from the raiding attacks of his most deadly enemy; and that in the "round and drooping shoulders" and head, flattened chest and sunken clavicles, the tubercle bacillus recognizes his field of labor. May the day speedily come when this great truth shall be recognized throughout the land, and efforts be put in practical operation to educate the young at home, at school, and in the various pursuits of life.

Fourth. Most frequently in males or females? Answers came from twelve that females are more subject; seven say males, five put it about equal, and four cannot answer from lack of data. So the experience here drawn forth, tallies with the experience of the balance of the world. Females are more subject to, and more of them die of this disease, than males, and this is incontestably established. Like everything occurring in this world there are definite reasons why females suffer most. As they are less exposed to inclemencies of weather and the hardships of life, it might at first blush be supposed that they would be more exempt. The reasons are found in the sedentary indoor lives they lead, favoring stagnation and sluggish circulation of the blood, which should go bounding through its course laden with a due share of oxygen in a more active state, the breathing of impure house-air freighted with its thousands of bacterial life in every portion inhaled, not receiving the thrilling and invigorating open air and life-giving of sunshine which is the most potent disinfectant yet discovered, it being shed abroad free to all and extending an inviting invitation. But this is not the only draw-back on females. Fashion has made exactions that operate even more unfavorably than causes aforementioned. Insufficient covering of the chest and limbs during cold and inclement weather, the wearing of shoes too thin in sole especially, and of a construction unadapted to comfort, but above all the unnatural and most injurious habit of contracting the waist and chest by stays in a vice-like grip; thus interfering in a very great degree with the functions of all the abdominal, pelvic and

thoracic organs. The circulation and proper function of the liver and spleen are greatly interfered with, digestion and chyfication are impaired, pelvic organs depressed below their normal level, the diaphragm is prevented from proper play, and the ribs cannot expand the chest walls, and the inevitable consequence is deficient respiration, and aeration of the blood. It is utterly out of the question to expect good health in anyone whose most important functions are so seriously impaired; and the death-rate from consumption at that age when this absurd fashion runs riot tells the tale in figures most alarming, and calls for emphatic condemnation by medical men and all others who have the love of their fellow beings at heart. The census statistics of both 1870 and 1880 show more deaths of females than males by consumption. But the telling effect of tight lacing is plainly shown by comparative death rate of the sexes at the age when women most freely indulge in the deadly habit. Under five years of age the census of 1870 and 1880 show more deaths of males than females from the disease. They also show a gradual increase of females after that age to ten years, and after that to fifteen the increase is quite rapid, so that at the latter age the census for 1870 gives deaths for males 501 and for females 1056; and for 1880 the disproportion is still greater. Between the ages of fifteen and twenty the difference is still greater, making it considerably more than double. This is the tribute females pay to fashion at that age. Females continue to hold the ascendancy till 35 years, in census of 1870, and to the fortieth year in that of 1880, when the males again come to the front and lead the list the balance of life.

This, it is submitted, is a frightful record, and shows what a dreadful penalty the race must pay when ignoring and directly violating the physiological laws of life. At this age pectoral breathing is forced on the female from sheer necessity as the only chance of life. The amount of air passing in and out of the lungs at each respiration is about twenty cubic inches, and by a deep and full inspiration it may be increased to one hundred cubic inches, and even this may be greatly increased by the right kind of physical training. It has been shown by many

observations that those who are deficient in vital capacity of the lungs, are greatly prone to phthisis. Many citations could be given did time and space permit. There are prejudicial surroundings favoring consumption in the female, such as sedentary occupations, breathing confined air, engaged in work that begets the habit of stoop shoulders, and consequent undue pressure of upper lobes from which men are much exempt; still all fair reasoning, critical observation, and experimentation on animals, but too plainly declare that it is to the pernicious habit of encasing the body in stays to which females owe their greater fatality in the prime of life. More than this, it is fair to conclude that a large number of those who escape death, assume the functions of life and maternity with a broken down constitution, hence favoring the disease in succeeding generations.

Fifth. At what age does it most frequently commence?

A number answer from 14 to 30 years of age, others from 15 to 21. One says at any time from birth to 45 years. Most frequently under 30 says one, another says under 25. One notes the fact that all his cases were under 35 except two. Cases under 10 years are mentioned once. Several mention puberty as the time, while others remark that females are attacked earlier than males. In infancy and up to ten years it appears from statistics that there is a greater tendency to affect other organs or assume the form of general tuberculosis. United States census shows that after that age the lungs become more liable to infection as every year adds to the age.

When the period of growth is at an end, is the time when the deadly work is general begun. This is sufficiently established by census returns and any amount of other statistical information. If the seeds of disease, that is, the bacilli, have been sown previously they remain in a dormant state while the vital powers are exerting an activity unknown at other periods, and abide their time till there is a lull of activity, when they awake from their lethargy and begin active operations. This may actually be the case in many instances. Where there is a weakly constitution and vital powers are running at a low ebb, as happens in many children, the bacilli find it unnecessary to wait till a cessation of growth. At this period too, boys and girls gen

erally begin to take less active exercise and to assume artificial ways of life not inimical to disease. Census returns show the bacilli to be in full blast from 20 to 30 years of age. The fact is it holds the fort and reigns supreme, producing the largest mortality of any other disease by great odds, from 15 years till 70, the allotted time for man to don his winding sheet and leave this vale of tears. This is a long reign, and well indeed does he show his fatal power: the deaths between 20 and 30 years of age being nearly one half from all known causes.

Sixth. Are mesenteric glands more involved in blacks than whites? Fourteen answer yes, one no, and thirteen are not prepared to answer, because either their attention has not been thus directed or they have had little experience with blacks. One remarks yes, decidedly so. No doubt this is the correct view, for it agrees with statistical information on the subject, and corresponds with personal observations and experience in times past, when negro practice was no small part of the business. Negro children are specially prone to tubercular involvement of the abdominal organs; and in most grown up patients it is an easy matter to discover the enlarged glands with the hand.

Seventh. First and second stage, how long each; the average duration of the case?

Fifteen can give no satisfactory answers because of no record and because patients had made considerable progress in the disease when first seen. Individual experiences of others vary much but generally an average of eighteen months for the first and two years for the second stage, is about right. Several say the first stage may be several years, and the second only one. The average duration is placed from two to four years. So many circumstances are to be taken into the account in arriving at an estimate in reference to this matter that in the very nature of the case any estimate that is fixed must be only a rough approximation. Age and sex have a bearing; the later in life the attack comes, the longer will be the duration generally; and it is an ascertained fact that with women the duration is shorter. Then again, much depends on the early recognition of the disease, and the perseverance with which remedial means of every kind are used. Many cases are taken off with the acute form

in a few months from inception, while others assuming a chronic form in originally strong constitutions, may move on the stage of action for many years, perhaps suffering from cavities not disposed to heal, long after the bacilli have vacated the field; and finally are worn out from suppurative action and malnutrition. There is hardly a doubt but what many persons not suspected are subjects of tubercle deposition. Post mortems have revealed this condition so often that the profession is fast drifting in this direction. A record of a large number of deaths kept by Dr. Williams, of London, shows an average of about eight years; but they were persons in circumstances enabling them to provide comforts and the necessary remedial aid.

Eighth. Both or either parent tuberculous; and what proportion hereditary?

Most answers put the acquisition by heredity at three-fourths. Six cannot answer for want of notes. Two state the inheritance was mostly from the mother. According to the observation of one, twenty-five per cent receive the taint from one parent and fifty per cent from both. Another is of opinion that the transmitted cause may skip a generation and claim for its prey the descendants. Out of a thousand cases recorded in private practice by an eminent physician forty-eight per cent were traced to family predisposition. Some writers of more recent date believe that no more than one-fourth are due to heredity. Of the thousand cases mentioned, more than one-fourth of the whole number were evidently due to pleurisy, pluro-pneumonia, and bronchitis, as making favorable conditions for bacilli action. There may be and doubtless are some cases in which the bacilli are transmitted to the child from the mother through nourishment derived from her; which of course would not apply to the father. It is not believed that the bacilli are ever transmitted directly from the father. And further, it seems most probable that the part both parents take in transmitting the taint is the imparting to their offspring a physical organization most suitable for the disease to develop when the cause finds entrance. It is well known that parents transmit temperaments, passions, dispositions and features; so in like manner physical defects or perfections are engrafted on the child. Suppose two persons deficient in

vital lung capacity unite in marriage, their children will inherit the defect greatly intensified, just the kind of lungs in fact which invite the disease. It does not follow necessarily, however, that all such children must inevitably die of consumption. Very much depends on their physical culture, sanitary environment, kind of food used, and occupations pursued. The time is coming and near at hand, it is confidently believed, when a large proportion of such unfortunates will be snatched from this mighty destroyer by a course of proper and systematic physical training. When parents are actually laboring under tuberculosis, of course their children will be doubly prone to take on the disease, and it will then require still greater vigilance to save them from the impending fate. In this connection the question arises whether in fact all the cases ascribed to heredity are actually derived in that way, or whether the majority may not come from contagion, the result of exposure in attendance on near relatives. Certainly this seems not improbable.

Ninth. At what season does it generally develop? In the personal experiences of those answering, seven mention winter and spring, three winter, five spring, three all seasons, three fall and spring, two January to May, one less in summer, other seasons about equal, one that more develop in summer and more die; one thinks the disease more favorable when inception is in the spring, and three fail to answer. The one who thinks the disease most frequently begins in summer and that more die at that season, seems to have lost his notch stick, for surely such experience is at variance with views generally held. There are good reasons for believing when the disease makes its first appearance in the latter part of winter or in the spring, the chances for arresting it are much better, provided necessary measures be at once taken and put into practice. On the contrary, when inception takes place in the fall or early winter it is most reasonable to conclude that the damp, changeable, cold weather of winter and spring favors the work of the bacilli, and so breaks down the constitution, and wears out the vital energies before equable weather returns, that the chances for restoration to health are greatly reduced. Census returns show more deaths

for March than any other month, April and February next, in the order mentioned, and this accords very well with common experience. Statistics marking the first inroad of the disease are not so readily found, for the reason that cases generally have been under headway for considerable time before they are brought to the notice of the profession. It is believed, however, that statistics and the every day experience of the general practitioner will bear out the assertion that winter is responsible more than other seasons for the commencement, spring and fall following suit, and sharing about equal honors.

Tenth. What per cent of recoveries or arrest? Seven answer none; ten range from 2 to 10 per cent, or say small indeed; one that arrest follows in the majority of cases, if seen in first stage; one a large per cent of recoveries; four 25 per cent, and four cannot answer. Those who claim such a large per cent must have been happily fortunate in seeing cases very early in first stage, or their diagnosis has not always been correct. It is not an easy matter for one not specially skilled in stethoscopic investigations to diagnosticate a case when commencing; besides chronic bronchitis and some other affections of the respiratory organs are liable to be mistaken for phthisis by physicians not expert in such investigations. Personal experience and observation agree more nearly with those who signify their results by naught, for of a fact experience and observation running through a number of years give almost barren results. As a general thing, patients are so changeable or have so little steadfastness in following any remedial means outlined for them, or else become discouraged, lose confidence, give up all hope and quit trying, that doctors generally have a poor show to do the best even that could be done under the circumstances.

The disease is so flattering that it is next to impossible to convince a patient in the first stage of the impending danger; and of a great many cases in the second stage the same may be said. Much is said in latter days of climatic cure, and according to most reports it has undoubtedly been a success, especially if taken in the first stage; but that treatment cannot apply in consequence of poverty circumstances to the vast majority of consumptives. Dr. Flint in his practice claims cures to the amount

of six and two-thirds per cent and arrests to the amount of four and a half per cent. Dr. Williams, of London, England, claims that seventy-two per cent from his practice recovered sufficiently to pursue the ordinary pursuits of life, and this after eight years had gone by. That beats consumption treatment in this country altogether.

Eleventh. Has hemoptysis been frequent; noticed advantage or disadvantage from it? Eight answer that it has been frequent, fourteen not, and the balance say 50 per cent. Eight claim for it an advantage, thirteen a disadvantage, while others remain silent. One remarks that while some are benefited by it others are run down by it. Another that it is not necessarily a bad symptom. Several mention deaths from it, and one claims that it is frequent in cases of heredity, but not in others. That lung hemorrhage is not an infallible sign of pulmonary tuberculosis is now well established, many cases resulting from heart disease and other troubles of the lung structures unconnected with bacilli action. In a few cases of plethoric state with active congestion a hemorrhage now and then of no serious import may possibly do no harm; but the conviction cannot be resisted that in nearly all cases it must necessarily be a decided disadvantage, since its tendency is to lower the vital powers and deplete the blood—a condition of things greatly to be deplored. It is said to occur less frequently in the second than in the first stage. But it is doubtless more disastrous in the second because larger vessels are generally ruptured. According to Flint's experience, it was favorable in arresting progressive action.

Not far from 50 per cent is about the ratio of occurrence as ascertained from reliable data. Some of much fame believe the resulting coagula in the bronchi form a nidus for microbic habitation.

Twelfth. Have you been able to diagnose acute miliary tuberculosis and fibroid phthisis, and seen much of them?

Fourteen reply yes, and fourteen no, or doubt their ability to diagnose. Most of them mention having seen only a few cases, or at least been able to recognize them. Mention is made of more recognition of general tuberculosis than fibroid, some cases of which were verified by post-mortem, and these proved rap-

idly fatal, dying in two months, having manifested striking symptoms of typhoid fever, and liable to be mistaken for that disease. One-fortieth of all deaths occurring in Paris, France, are attributable to acute tuberculosis. The colored race are strongly disposed to that manifestation of tubercle. Especially is it very prevalent among colored children, and to the age of ten years white children are much subject to it. No doubt many spasmodic affections of childhood owe their origin to the deposition of tubercle in various organs. In many deaths from convulsions, examination after death has revealed the true cause to be tuberculosis. It is more than probable that this disease has been too much overlooked in the past. Practically the diagnosis of fibroid phthisis amounts to but little outside of the fact that in most cases a little longer lease of life can be promised; finally, the end comes, just as in regular phthisis, much too soon.

Thirteenth. Any permanent good from alcohol, cod liver oil, extract malt, hypophosphites, anti-septic inhalations?

Fifteen answers favorable to the use of alcohol, ten to hypophosphites, six to antiseptic inhalations, sixteen to cod-liver oil, five to malt and maltine, and five say no good from any. One thinks they are good if taken in the inception of attack, one that they are good enough to justify their use; one esteems alcohol, malt and oil, but has no faith in others; one places his hopes in hypophosphites; one is doubtful of their efficacy, but knows nothing better; one thinks alcohol good in large doses, but of no account in small ones; the supposition of one is that they may prolong life; one relies on good feeding, and another says the disease takes its regular course, and is but little or not at all influenced by treatment. So it seems there is but little faith manifested in the regular stand-bys of the profession; which is a sad commentary on the past treatment.

Fourteenth. Have you used sulphuretted hydrogen enemata with any success?

To this question twenty-four answer no, and four say they have used it with partial success. In one case it is declared to have effected a complete and permanent cure. Used in other cases with temporary good only. The fact is noted that it sets up a bad diarrhea which stops when injections are withheld, and

commences again when they are renewed. One has seen it used in hospitals quite extensively to no good purpose. Many say they never expect to use it; and the expression is doubtful of its efficacy; one thinks a free indulgence in boiled beans would serve the same purpose.

A learned professor seriously and in good faith recommended this last remedy in a lecture during the past year, and for the time being became the laughing-stock of his fellows. About a year ago this new treatment flashed upon the professional and lay world with meteoric splendor. The cry went sounding through the length and breadth of the land, eureka—it is found. Its fame was as wonderful as the celebrated rejuvenating spring of Ponce de Leon. Doctors were rushing after necessary instruments, and poor consumptives were raised to the highest pitch of expectation and hope; but alas, too soon were their dreams of restored health dashed to pieces; the bubble has bursted, and left scarcely a trace of its brilliant corruscations. It is the same old tale, a drowning man catching at a straw. Experimentation carried out on an extended scale in New York City, showed conclusively that in most of the cases the gas was not carried out through the lungs, and in any case it was so little as to be altogether insignificant. It was found also, not to be destructive to the bacillus, yet it may be possible that in cases just beginning the remedy affects its conditions of life to the extent of rendering it innocuous. In such cases there seems to be still a lingering impression that the treatment is not altogether a failure. In the advanced stage it is fully settled that it is worse than useless; but about the same can be said of most other treatment in that stage. Bergeon still claims, and but recently gave vent to public declaration, that if used strictly in accordance with his directions it will not prove a failure.

Fifteenth. What curative treatment, if any, is most effective?

Six recommend climate, ten trust to feeding and giving nature a fair show; the others rely on the use of alcohol, hypophosphites, cod liver oil, antiseptic inhalations, malt, maltine, Phillips' emulsion, beer and other agents; giving preference as their experiences seem to warrant. Two speak of small doses of arsenic long continued with occasional omissions as better than

anything else. Importance of good nourishment is generally impressed, with out-door exercise; cream and eggs are mentioned in the dietary several times; chief reliance by one is placed in cream, fat pork and cod liver oil; one on alcohol, raw beef, eggs and fresh air; one thinks rectal injections of sulphuretted hydrogen good in the early stage; another declares that he has long since given up specific treatment.

Removal to a country where the bacilli are unknown is recommended. Answers generally show a distrust of medical treatment, and well they may, since the outcome of all kinds of treatment has proved of so little value. The profession has been groping in the dark for hundreds of years, trying all manner of means to break the potent power of this the most fatal destroyer of the race in civilized countries. There had been quite a lull however at efforts in this direction for some years, until Villemain in 1865, demonstrated the inoculability of tuberculous products, showing that the disease was transmissible. This gave a glimpse of the true nature of the disease as well as an increased impetus to the warfare against the cause soon to be revealed by Koch as the bacillus tuberculosis. Since this last discovery the profession has been on the right track, pursuing this terrible little pest with a zeal red hot, and a determination that knows no let up or rest up. True, no specific has been discovered; but investigations are bringing to light cumulative facts that will probably tell to great advantage before many years shall have rolled away. The climatic treatment of high altitudes approaches very nearly the specific idea; and most likely it is so to patients in the first stage, and a preventive also, to those yet unaffected. It cannot reach cases far advanced, as a general thing, for the reason that ulcerating cavities continue to exhaust vital energy, thus preventing recuperation; besides the lung capacity is not sufficient, owing to lung destruction, to purify and oxygenate the blood; at the same time there is defective digestion and assimilation that cannot be changed in the face of this physical wreck. These cases are generally made worse from the difficulty of obtaining sufficient oxygen in such a rarefied medium. There is a line of demarcation in all diseases and physical disabilities, as truly as that of mortification, which plainly says there is no

recuperation when once this line is crossed; in other words, there is a stage in all diseases from which all efforts to rescue the patient are vain and useless. When that state is upon a consumptive it is worse than useless to recommend climatic treatment. But a doctor can not always make a correct prognosis: the amount of damage already done is beyond his vision, and no acts of the profession can show up the exact situation; hence many patients are sent from home to die in a strange land, surrounded by strangers. This is a cruelty, though ever so well meant.

Many of these cases that are made worse, would likely be benefited, if not cured, under a different management from that generally adopted. Instead of going to a chosen location of high altitude at once, as is generally done, the patient should be advised to make gradual approaches, running through at least six months; so that his physical deficiencies might be insensibly accommodated to the greatly changed surroundings. But, allowing that very great benefits may flow from a change of climate, it would be practically useless to more than three-fourths of consumptives. Statistics place it beyond doubt, that the poor and miserably situated are far the greatest sufferers from this disease. It would not be a miscalculation, perhaps, to estimate more than three-fourths of such sufferers as belonging to a class who would be unable financially to take a trip like the one contemplated. It is of much interest to know what are the factors in this high altitude cure. That there is an aseptic state of the atmosphere is sufficiently attested by experiments that have been made, and from the fact that fresh meat in such localities is cured in the open air without salt, smoke or other antiseptic treatment. Miguel, of Paris, France, has established by repeated experiments that the higher the altitude the fewer are the micro-organisms in the air. They diminish in numbers rapidly as the altitude rises, and increase in the opposite ratio as the sea-level is approached. There may be several or many causes for this absence of bacterial life of all kinds in the upper air. At high elevations there is more electricity and ozone in circulation, and they are certainly inimical to microbial life. Ozone is a superior antiseptic and purifies the air wherever it abounds. The air is

greatly rarefied, and this in all probability is opposed to the healthy life conditions of this low order of existence. Besides rarefied air expands air cells and increases vital lung capacities. Again there is great dryness in the air and also in the soil; this has been proven to be destructive to all such life. The cholera bacilli soon die when deprived of moisture. The germ of malarial fever does not live above the fog-line as has been time and again proven by persons being exempt who live in such localities above the line. Yellow fever is endemic on lands bordering on the Caribbean sea where the gulf stream is of an extra high temperature, thus producing the greatest amount of evaporation known, which vapor settles on the adjacent land, making it habitable for the yellow fever microbe. When this infectious disease is imported to this country, it is a notable fact that it is not contagious above an altitude of five hundred feet. This is doubtless owing to the want of aqueous vapor in the air above that altitude.

Experiments have been recently made on rabbits wherein the tubercle bacilli were thrown into the trachea in a dry state or with dust, and they failed of inoculation; but as soon as they were introduced with water or vapor they took up their abode, and showed results in a short time. It was further shown that if there was irritation or abrasion of the mucous membranes, their inoculation was always more certain, which is quite a significant fact, and sufficiently explains the great advantage to consumptives of a dry equable climate, where they are little subject to bronchitis and other irritative and inflammatory attacks of the air passages, the result of vicissitudes in the weather. This has a very important and practical bearing on phthisical patients, as well as those predisposed to the disease, who are unable to visit the health restoring sanitarial localities. The lesson is: Keep the respiratory passages as free from irritative and inflammatory action as possible, and thus prevent a nidus forming for the home of the bacilli wherein they not only find the necessary secretions to proliferate, but abrasions in the mucous surfaces inviting them to enter. No doubt the surface ground and substratum of air is the natural habitat of all these low organizations. As much moisture is quite necessary to their existence, it follows that a

dry porous soil is hurtful if not positively prohibitory to them.

It is found on investigation that all sanatoria both in the United States and elsewhere, are noted for a dry, porous or sandy soil. Pinerias have great repute for restoring phthisical patients through the turpentine exhalations, and, perhaps, their oxidation producing peroxide of hydrogen, which is a known disinfectant of great power. In all such localities the soil will also be found sandy and porous. There are many health resorts in the United States for which great claims are put forth, and perhaps they are as good if not better than any others in the world, Aikin, South Carolina, Ashville, North Carolina, parts of Minnesota, Nebraska, especially around Omaha, where the subsoil is of peculiar composition and most favorable to dryness, Colorado and New Mexico, which will finally become the paradise of consumptives, some parts of the mountain range of California and some of the southern part of the state known as the "One Lung Country" because of its consumptive inhabitants, anywhere in fact, with an altitude of about 5000 feet, and where protection is found from bleak winds, and there is plenty of sunshine, and a patient can take active exercise out of doors most of the day. A sea voyage is curative because of the aseptic and antiseptic state of the air, resulting from salt vapors, and further because there is no soil in which most probably the bacilli have their natural habitat. But what can be done for that class who are unable to leave home? The answer at present is quite unsatisfactory. The pneumatic cabinet has been tried on the theory of expanding the air-cells like the rarefied air of high altitudes. The inhalation of oxygen, peroxide of hydrogen, ozone, and various reputed antiseptics has been given a chance with no extra good results. The bacterium termo has been pitted against the bacilli. The sulphurous acid gas has received high praise; and as it is one of the best disinfectants known, and that with which ships, hospitals and houses are disinfected, and as all the sulphur preparations are known to be almost certain death to all low orders of life, it is believed the sulphurous acid bids as fair to be the long sought for remedy as anything at present known, if it could be applied just right. The avenue of successful treatment will probably be by the lungs, and to be ef-

fectual the lungs must be almost continually bathed in the germicidal remedy.

MM. Auriol and Dujardin-Beaumetz, of France, were impressed enough with the remedy to fit up rooms for its use; and they have recently reported strikingly good success; at least fifty per cent being relieved, and the symptoms of the incurable greatly ameliorated. Owing to its antiseptic qualities sulphide of calcium was suggested and used internally of late with asserted good success. The latest novelty in the way of cure is fluorhydric acid by inhalation in a cabinet. Out of 100 patients 35 are reported cured and 41 improved. Prof. Loomis recommends the planting of pines adjacent to houses, that they may send forth balsamic emanations and peroxide of hydrogen, and thus make every domicile aseptic and antiseptic. The idea may be of much worth; and in addition, there might be a growth of the eucalyptus cultivated whose roots would drain low damp soil and its exhalations thrown off in the air would help the pines to make it healthy. An ozone generator in a consumptive family, continually giving a lung-bath, would certainly be beneficial; also the continual evaporation of tar and turpentine in the sick room would give some benefits of the pinery, though not so good.

Consumptives should adopt the open air cure of Germany as much as possible, live in houses situated on ground thrown up above the surrounding level, and minus a cellar, sleep up stairs in a large well ventilated room, take all the horse-back exercise compatible with health and surroundings, plenty of plain nourishing food, take full, deep inspirations, many times during the day, enjoy to the fullest the life-giving sunshine, keep the feet dry and warm, and the body well protected against inclemencies of weather, use a respirator and gum protection when necessary, shun bad weather, cure an accidental cold by going to bed and sweating it out as soon as possible, thus upsetting the calculations of the bacilli, take a sponge bath every day of five minutes, if vitality enough remains—in other words, give the “potency of nature’s therapeutics” a fair chance, and the prospect will be as flattering as under any course unless a microbicide shall be found to do the work effectually. Other approved helps of course come in play when needed.

Sixteenth. What preventive treatment have you to suggest?

Ten recommend change of climate, thirteen suggest the importance of open air exercise, good nourishment and strict observance of the laws of health. Some of the curative remedies under last heading are occasionally mentioned. Warm clothing in winter, and freedom from exposure to inclement weather is generally enjoined. Traveling and camp-life is mentioned as good; and as soon as the disease is diagnosed, send the patient to where there are no bacilli. One says keep the sick from the well as much as possible, and not more than two sleep in a room. Others say favor the prevention of intermarriage, and some other suggestions in this direction even more radical in their effect are recommended. The latter suggestions if they were practical would meet the case so far as inheritance is concerned; but it would not affect that other large class estimated by some at three fourths of all cases, which result from other causes than heredity.

While all these suggestions are very good, some of them exceptionally so, they do not altogether meet the case, or at least cover it. Some of them refer more especially to curative treatment, and others fail to go the bottom of the preventive idea. Prevention, it is believed, is the stronghold of the profession to-day, not only in this disease but in most others. Just as "prevention is better than cure" so are preventive measures more desirable than therapeutical ones. Nearly the last public expressions of those two distinguished Americans, Gross and Flint, the one standing at the head of surgery and the other at that of medicine in this country, were significant of the great change that has taken place in the minds of medical men in the last few years. In those addresses they both declare in so many words that the great question of the day is preventive medicine. Not only should the profession heed these warning voices, but an effort must be made through it to educate the people to a proper understanding of the laws of health, which are not very complex, but on the contrary are really quite simple and easily to be understood; but the real failure is in putting this knowledge into practice. To succeed at this effectually, efforts must begin at ground-work and go upward—the child must be educated at

home, in the school and wherever placed, in such sanitary measures as will preserve its health and prolong its life, and when it "gets old it will not depart from them." Much of this instruction perhaps will need to be compulsory.

Right at the very bottom of preventive measures in phthisis, comes physical culture in a systematic manner under one thoroughly competent to instruct, and it is so much the better if that is the only business of the instructor. Such a system of instruction is now in vogue to a limited extent in many institutions in this country, Amherst College leading and carrying it to the greatest perfection. Were all children educated physically as they are in that institution, the bacilli would find themselves in much the same fix as Othello: their occupation would be gone. If not so, discouragement would be so great as to make them nearly harmless.

Calisthenic and gymnastic exercises are pursued as regularly and as systematically in that institution as are the curriculum studies, and under a teacher thoroughly informed in medical science, and imbued with the great importance of his mission. All the muscles are brought up to a healthy standard, the chest walls are dilated, the lungs expanded, and the air-cells filled to repletion with vivifying oxygen, the blood goes bounding resistlessly in its course, carrying glad tidings to every nook and corner of this wonderful human mechanism. All parts are so developed as to make a symmetrical whole. When that is done, man is a true specimen of the *genus homo*, and a fair representative of his great prototype of Edenic fame. Every child of course, cannot have so great advantages, but there is no good reason why physical culture should not be taught in every school in this broad land; just as it is in Germany. It is the very education above all others that the child needs, for without health life is no great boon, and no person can be healthy whose physical education is neglected. Children are educated too much intellectually, and too little physically and morally: hence the land is flooded with diseased and immoral wrecks. Never will man be at his best—a perfect man—until these three elements of education are meted out to him in equal proportions. The failure to do this is no doubt the cause of incalculable misery

in our land. The first thing then to teach a child is cleanliness, to sit straight and walk erect, with the head thrown back, the chest to the front in reputed image of the great I Am, and to take frequently through the day full inspirations with the mouth closed, retaining the air from five to ten seconds each time. In this way habits are engrafted that will continue through life and give protection to a great degree against phthisical attacks. Between the ages of ten and fifteen years is the healthiest period of man's whole existence, as shown by census returns; and it corresponds with that age when children have enlarged freedom, and exercise it in the enjoyment of muscular out-door exercise. Kindergarten instruction for little children is a most pernicious thing. Children at that age should not be shut up in a house, and their brains taxed in the vain effort to make them smart.

Children will do better, learn faster, and know more at twenty years if they have not entered a school-room before nine or ten years of age; and what is still better, their constitutions will be sounder and able to endure more of the hardships of life. School-desks are generally too low, and the child to accommodate itself to enforced circumstances acquires the habit of "stoop shoulders" from which no ordinary training will relieve it. Children should sleep on hard beds, with the head low to prevent the same defect. They should subsist on a plain nutritious diet composed mostly of fruits, vegetables, and cereal products. The less they indulge in meats, the better health will they have, and the longer life be assured. Every week brings new investigations into the cause of disease in man and animals; and it is being shown beyond a doubt that many diseases are contracted from animals. Cattle and chickens are greatly prone to tuberculosis. From fifteen to twenty per cent of cattle are affected. There can be no question that many cases of phthisis in man are produced from eating the flesh and drinking the milk of diseased cows. Especially is it likely that general tuberculosis which numbers one-twentieth of all deaths in Paris is produced in this way. Chickens and cattle are most extensively used for food. Only last week, was it recorded of chickens, dogs, and cats, having eaten the sputa of tuberculous patients, resulting in their infection in

a short time. Scrofula, a form of tuberculosis, comes from scrofa—sow, and was so named from the belief that it originated in that way.

Every day something in this direction is being revealed, and a congress of scientists from different countries meet in Paris next July to compare notes and further investigate in reference to this particular thought. A point should be made to have hygiene in all its branches taught in school, because whatever a child learns from a school book makes a more lasting impression than if received from any other source. Plenty of exercise in the open air is positively necessary to good health and physical development. Unless a child gets exercise and sun-baths it will be like a plant kept in a cellar, sickly and without color. Exercise creates a demand for oxygen, and a free circulation of oxygen and the bacilli fail to go together; and this is the great advantage of chest and lung expansion, whether produced from training or from necessity in high altitudes.

Thus, it will be found that by instilling these and other simple rules into the minds of children while young, one of the greatest powers that can be used to effect prevention will be brought into play, whereas, if delayed till later years they make little impression. People should understand that just in proportion as they settle in the country districts, and better their circumstances, will their chances for exemption be enhanced. This fact is abundantly established by any amount of statistical information, and the reasons lie right on the surface.

Those who are predisposed to the disease by heredity, and others from physical defects, should remember that eternal vigilance is the price of safety, while medical students attending college should more especially direct attention to physical diagnosis so as to enable them to detect the earliest manifestations

Thus being prepared for mutual cooperation looking to definite results, the time will have come when the greatest good may be anticipated, and the fondest expectations of those who have labored long and zealously in this behalf it is hoped shall be fully realized.

THE PERSONAL EQUATION : A SUGGESTION
CONCERNING DIAGNOSIS BY AUSCULTATION.

BY ROBERT BARCLAY, A.M. M.D.,

[Read before the Missouri State Medical Association, at Kansas City, Mo., April 17, 1888].

ON this important occasion, when, from all parts of the state, we congregate to review the progress of the past year, and to contribute to the general fund of information for our better guidance in the future, it is indeed a privilege to offer, from the department of otology, a suggestion which may aid you in surmounting certain difficulties which attend diagnosis by auscultation. If there be among those present any who have been so unusually fortunate as to have altogether escaped these, let me hope that they will pardon and consider the suggestion, in view of the fact that these same difficulties may at any time arise to annoy or disable them in the employment of this indispensable method of examination.

In a recent excellent review bearing the title "The Time it takes to Think" [*Med. Record*, N. Y. March 3, 1888, p. 259.] which ably discusses "the varying rate at which *the mind responds* [*Italics mine !*] to the numerous impulses which reach it from the outer world, "there is inserted a reference to the relative personal equation of the astronomers, Bessel and Struve. This use of the personal equation has prompted its presentation in this paper, since through it we may more readily comprehend certain broad principles which are implied in the suggestion proposed in my title.

Personal equation is a term recently introduced to denote the interval of time by which an observer, on the average of a number of observations, notes a phenomenon before or after the instant assumed to be that of its actual occurrence. It is employed mainly in correcting the record of transit observations. A transit observation by the ordinary method consists essentially in noting the exact time of passage of a celestial body over the meridional vertical thread of a transit instrument, while

keeping mental count of seconds by aid of the audible beats of a clock. The absolute personal equation or personal error is found by testing with a special instrument constructed on the principle of Marey [See Dalton's *Human Physiology*, Philadelphia, 1875, p. 426-427.] where a single luminous point moves in a circle with uniform velocity before the field of a transit instrument. The exact instant when this luminous point crosses the thread is automatically registered on a revolving cylinder, the observer recording its passage over the thread by similar means. The register thus accurately records the difference between the real and observed time, which difference is the absolute personal equation, or error of the individual. [See illustrations in the works of Dalton and Burkhardt].

The personal equation represents the time employed in performance of a voluntary movement in response to a given signal. This complex performance consists of six different and dissimilar processes : first, the reception of the sensible signal by the sensitive membrane ; second, transmission of the stimulus through the nerve fibres to the brain ; third, its perception in the brain as a conscious sensation ; fourth, the act of volition, taking place in the brain ; fifth, the transmission of the motor impulse through the spinal cord and nerves to their peripheral terminations ; and, sixth, the excitement of the muscular fibres to a state of contraction. [See Dalton, *loc. cit.*, on the "Rapidity of Transmission of Nerve Force."] While the greater portion of the reaction period is occupied by the action of the nerve centres, (third and fourth specified above,) yet in considering the nature of the personal equation and its causes, we should not ignore the time employed by the transmitting nervous apparatus and perceptive organs in performance of their portion of the observation. For, as Dalton so comprehensively expresses it, "The physiological variation in rapidity of any or all of the nervous actions above enumerated, in different individuals, causes a difference in promptitude with which sensible phenomena are perceived and recorded by different observers." [Dalton, *loc. cit.* p. 431.] This difference of time is called generally the personal equation of two observers ; it is perhaps better called the relative personal equation.

The first notice we have of this is an announcement by Maskelyne [Greenwich Observations for 1795] where he tells of the necessity of parting with his assistant, Kinnebrook, because, though agreeing with him till then in his observations, he suddenly began in August, 1794, to observe 0.5 s. later, and that in January, 1796, the difference amounted to 0.8 s. "Maskelyne inferred that his assistant had contracted some bad habit of observation;" and of the variation in their relative personal equation a writer says "it is very well known that age causes persons to observe later than they did before, though it is not usual for the habit to undergo such sudden changes as in the above case." [Charles Knight's edition of the Encyclopedia of Arts and Sciences, London, 1861, Vol. VIII, 915.] Messrs. Quetelet and Sheepshanks, in 1838-41, made a careful test of this subject in determining the longitude of Brussels. The latter observer recorded a transit 0.45 s. later than the former, at Brussels; while at Greenwich, 0.24 s., 0.27 s., 0.35 s. earlier than Messrs. Ellis, Main, and Henry, respectively. See a memoir on the differences of Longitude of Brussels and Greenwich, by M. Quetelet and Sheepshanks, *Mem. de l'Academ. Roy. de Bruxelles*. Vol. XVI.]

In 1823, Bessel at Königsberg found that he observed 1.22 s. before Argelander. The latter soon afterward went to take charge of the observatory at Bonn. On revisiting Königsberg in 1832, Argelander and Bessel again compared observations, and found their relative personal equation reduced to 1.06 s. [Knight, *loc. cit.* Vol. VIII, 915.]

In 1814, there was no personal equation between Bessel and Struve, but in 1821, it was 0.8 s., and in 1823, 1.0 s. [William Chauvenet's Manual of Spherical and Practical Astronomy, Philadelphia, 5th Ed. 1863, Vol. II. p. 192.] This is the case referred to in the introduction of this article.

Many are the explanations offered of the variations of the relative personal equation of two observers and of the fluctuations of personal error of individuals. The following are fair examples of popular opinion upon this subject.

The general physical condition, the posture of the body, the observer's health, or the condition of his nervous system will

cause the personal equation to fluctuate. [William Chauvenet, *loc. cit.*]

It is very probable that the peculiarity of the clock-beat affects the equation. Bessel found that with a chronometer beating half seconds he observed transit 0.49 s. later than with a clock beating whole seconds. [*Ibid.*]

The success of the observation will depend in part on the beat of the clock. The advantage of a distinct audible beat is very often overlooked. [Knight, *loc. cit.* Vol. VIII, 314.]

Perhaps by trying the same thing when fatigued, he might detect a change in his perceptions. [*Ibid.*]

It becomes obvious that the cause is in the organs of the men themselves, and that physical constitution, temperament, habit, etc., make differences between one person and another. [*Ibid.*]

It is now well known that age causes persons to observe later than they did before, though it is not usual for the habit to undergo such sudden changes as in the above case (of Mr. Kinnebrook.) [Knight, *loc. cit.*]

The explanation of the "varying rate at which *the mind responds* [Italics mine!] to the numerous impulses which reach it from the "outer world" you have already heard in my introduction. [Reference above.]

While it is certainly true that the variations in the rapidity of action of the nervous centres, (which action occupies a considerable portion of the reaction period) makes a corresponding difference in the personal equation, yet the variations in that of the nervous transmitting apparatus and perceptive organs themselves seem to be almost entirely ignored by those who are most interested in this subject. Pardon this repetition, that "The physiological variation in rapidity of any or all of the nervous actions above enumerated" (as component factors of the personal equation) "in different individuals, causes a difference in the promptitude with which sensible phenomena are perceived and recorded by different observers." [Dalton, *loc. cit.* p. 431.]

When we consider the fact that the rate of conscious sensibility in the sensitive nerves of healthy individuals varies from 20 to 73 metres a second, that through the spinal cord tactile and painful impressions are transmitted at the rate of 42 and 13 me-

tres a second respectively, that through the healthy spinal cord motor impulses are transmitted at the rate of only 10 metres a second, while through the spinal motor nerves the velocity varies from 20 to 36 metres a second, in the healthy state, surely it seems unreasonable to ignore these organs which, as well as the nerve centres, participate in a transit observation, for these are pre-eminently liable to functional and resultant organic variations.

In every calculation or examination where instrumental aid is required, it is necessary to first ascertain, not assume, the degree of accuracy of the instrument,—and should medical and other scientific observers ignore the condition of their sensory organs, which are the instruments of their perception? For what is perception? The phenomena of perception are mental cognitions only. We do not immediately perceive external objects. Something intervenes between the mental cognitions and the external reality; and perception proper is the consciousness, through our senses, of the qualities of an object known as different from self. Therefore in our investigations of the outer world we must estimate the testimony of our senses according to their credibility as witnesses. For illustration, it is said that in some cases of astigmatism of the eye, spherical bodies appear spheroidal, as, for example, the full moon which then appears elliptical or ovoid. In some cases of simple glaucoma, a kind of halo appears around every luminous body.

We need but mention color-blindness. In accidents producing unconsciousness or stupidity, with destruction of a limb, where, after amputation has been performed, complete consciousness returns, the sufferer thinks he feels pain or other sensations in his hand or foot, which member he finds, on looking, to have been removed. The literature of otology is rich in reports of cases of aural hallucinations, many of them becoming delusions, arising from aural disturbance. These cases, of course, begin with uncertainty as to the ectogenetic or entogenetic character of vibrations perceived as sounds. An amusing instance of this uncertainty from my own experience may be related apropos: On one occasion while dining with a professional brother, an otologist, (Dr. Wm. A. Bartlett, of New York,) we simultaneously looked up

inquiringly at each other, to our subsequent amusement, having both been uncertain as to the ectogenetic or entogenetic character of a high-pitched, "mosquito-like" tone, which was perceived by each of us in one ear. This uncertainty arose from a knowledge of the fact that sonorous vibrations are often generated within the head in performance of the physiological functions of phonation, respiration, circulation, mastication, and deglutition, which vibrations may be perceived by bone conduction in certain altered states of normal tension of the transmitting mechanism of the ear. These alterations may be due to inflammatory processes, coughing, blowing the nose, yawning, eructation, swallowing, change of posture of the head, obstruction of the external auditory canal, as in auscultation, etc. For the transmitting mechanism of the ear is of such construction that there must be equal pressure on both sides of the membrana tympani in order that it may vibrate to its maximum mechanical and physiological degree—and by vibrate I mean move each way, inward and outward, to its normal position. Each curved radiating fibre of this membrane forms an arc of a greater circle on impact of an aerial sonorous impulse, thereby lengthening the distance between the annulus tympanicus, to which the periphery of the drum-head is attached, and the umbo, or centre of the vibrating drum head, where the end of the handle of the malleus is attached and has greatest oscillation. The impulse thus received is transmitted through the chain of ossicles to the inner ear. Therefore, to vibrate at its maximum the radiating fibres of the drum-head must be arcs of certain circles, and thus the drum-head itself be of the normal curve. But if by rarefaction of the air in the tympanum and atmospheric pressure from without the drum-head is flattened inward and the curved fibres become arcs of greater circles, the drum-head will so far simulate a simple cone and its mobility will be impaired in proportion. Moreover the malleo-incudal joint is of such a peculiar saddle-shaped construction that the malleus can move outward without drawing with it the incus and other parts of the transmitting mechanism lying between it and the auditory nerve filaments, when all the parts are in normal tension. Thus entogenetic vibrations pass out unperceived and are lost, in like

manner as the last of a straight row of touching billiard balls will roll away leaving the others unmoved, when a ball moving in the same line strikes the first one. If the last two balls were united they would move together, if the transmitted force were sufficiently great to overcome their inertia and friction with the table—but the two united balls being heavier than the first, rolling one would cause it to rebound in inverse proportion to their inertia. If all the balls were united and had sufficient inertia to resist the force of the moving ball, it would itself rebound and leave the balls unmoved. It is practically thus in certain altered conditions of tension and mobility of the transmitting mechanism of the ear where vibrations coming from without by aerial conduction do not pass normally from the drum-head inward to the perceptive portions of the ear, nor do vibrations from within pass outward and become lost, but rebound to the perceptive apparatus. In such cases the tuning fork is heard through the bones and tissues of the head better proportionately to an increasing defect of hearing by aerial transmission. In other words "perception of vibrations by tissue conduction varies inversely as that by normal aerial transmission." Variations in the tension of the transmitting mechanism from time to time produce perception of ectogenetic and entogenetic vibrations alternately, which leads to indecision as to the source and signification of sounds. There is a degree of altered tension where ectogenetic vibrations alone are perceived, but which, by changing the posture of the head, pressing the ear against the chest, or applying a stethoscope, varies to such a degree that entogenetic vibrations become perceptible as sound. Under such conditions one may hear entogenetic vibrations, and vibrations from friction in the structures intermediate between the ear and chest, together with vibrations from healthy and unhealthy moving or hollow structures which are being examined. Should the examiner ignore the complex source of his perceptions and refer them all to the body under examination, serious confusion and grave errors of diagnosis result. He must, of necessity, be practically disabled, or homicidally active, who wilfully or through ignorance fails to remove this source of error.

This should be done by everyone who presumes to diagnosticate

by auscultation, and it can be done in the following way, which I suggest: First, ascertain through expert examination, whether or not your instrument of hearing, your ear, is in a perfectly healthy condition and functionally reliable; if it be found at all disordered, have this remedied at once, and keep it so. Next familiarize yourself with all the sounds to be heard when your healthy ear is immediately, or through the stethoscope you intend to use in practice, pressed against a smooth and solid body which has been separated from other bodies having sonorous vibrations. Repeat this exercise afterward with a towel intervening between the ear and solid body. Next learn to recognize all the sounds of healthy moving and hollow structures; and lastly familiarize yourself with the auscultatory phenomena characteristic of the various diseases which affect these structures. Thus you will be able to at once analyze auditory perceptions, refer each to its proper source, and thus avoid confusion and errors in diagnosis.

HEART TONICS.

BY J. C. MULHALL, M. D., *Professor Diseases Throat and Chest Beaumont Hospital Med. College, Physician for Diseases Throat and Chest Alexian Brothers' Hospital.*

[Read before the Mo. State Med. Ass'n, Kansas City, April, 1888.]

TO present you with even an abstract of all that has been written within the last two years concerning the subject of my paper would impose on you a wearying and confusing detail.

A number of entirely new drugs have been introduced, and the more intelligent use of several almost forgotten ones has been revived.

Observers, the world over, having tested these various drugs, have rushed pell-mell into print with their conclusions, and the proverbial disagreement of doctors has resulted.

In the case of each drug, I have taken into consideration the

conclusions of one or more admitted authorities, and have tested for myself such conclusions, only, however, at the bedside.

That there exists a necessity at times for a substitute for digitalis, equally powerful with that magnificent drug, will be readily admitted by every one who has been much concerned with the treatment of heart disease. That many lives have been suddenly shortened through the cumulative action of digitalis cannot be denied. Who has not seen his anasarcaous patient, with failing heart and sluggish kidneys, revive under the influence of digitalis, his pulse beat grow slower, stronger and more rhythmical, his urinary secretions augment, his dropsy decline, when all at once the happy friends are thrown into alarm at seeing the patient grow nauseated, vomit, and refuse longer to eat? What chance have the weary heart walls for the nutrition that is to give them more permanent strength than that afforded by a drug, when the alimentary canal refuses to obey its functions? We are compelled to withdraw digitalis and frequently to await the return of the stomach to its duties, before again venturing to administer the drug. The delay may be fatal. The heart may again rapidly fail to a greater degree than before, and be beyond the help of tonics. I have in my mind two individuals who having thus experienced nausea and vomiting, were never again able to take even a single dose of digitalis.

Again, with certain cases we are unable to get the happy effects which in the vast majority of cases we do get from digitalis. Physicians have with reason, therefore, sought to find a drug which, if not equally potent, was at least a powerful ally. The list experimented with includes convallaria majalis, adonis vernalis, the various salts of caffeine, sulphate of sparteine and strophanthus hispidus.

Before the introduction of the last named drug I had frequently prescribed convallaria and adonis vernalis. I mention both in the same breath, for, as far as I could determine, the only clinical difference was that the diuretic effect of the adonis vernalis was far better marked than that of the convallaria. The first great objection was their abominable taste, and in the few cases I treated, the stomach very quickly exhibited repugnance to their continued administration. It goes without saying that like in pul-

monary phthisis, so in the individual with ruptured compensation and failing heart muscle, the first great avenue of approach, the stomach, must be maintained in tolerant and vigorous condition. Both drugs certainly slowed and made more vigorous the heart's action, and are justly entitled to the name, cardiac tonics. Though they seemed to act more quickly than digitalis, their beneficial effect also seemed to cease at once with their use, thus differing in an important way from digitalis. Again their tonic effect on heart and arteries was not nearly so well marked as that of digitalis, and they therefore never exhibited such prompt and magical relief to cardiac dyspnea or dropsy as we so often see from digitalis. I should say that at best they were poor allies to digitalis and very inefficient substitutes for strophanthus, caffeine, or sparteine.

I have used but one salt of caffeine, the citrate, in quantity not exceeding twenty-five grains, usually fifteen, in twenty-four hours, and have administered it in five cases, not a large number but sufficient to enable me to call it a valuable adjuvant in the treatment of heart diseases. It acts much as digitalis does, being a heart regulator and diuretic, but again, though acting more promptly than digitalis, it did not seem to me to produce so slow, regular and powerful a pulse beat as the latter. It was in each instance well borne by the stomach. In one case, it seemed to be completely useless, and though in the same case, one of mitral regurgitation in a child, the substitution of digitalis was more efficient, compensation was never established and the patient died.

Five years ago a woman aged 31, and her brother aged 22, both the subjects of mitral stenosis came under my observation, and to the present date have remained my patients. Some months since I was called to see the woman who was in the seventh month of her third pregnancy, on account of alarming dyspnea, and increasing edema of the lower extremities. Judge of my astonishment when I found the loud, harsh, jarring, presystolic murmur, which in this very patient I had often demonstrated to various students, to have completely disappeared. There existed, however, the constant signs of mitral stenosis, and furthermore that of a failing right ventricle, an occasional

tricuspid regurgitant murmur being audible. This patient took during the remaining two months of her pregnancy five grains citrate caffeine three times daily with the happiest effects upon her circulation. Her physician after her delivery, fearful that the caffeine might not prove powerful to carry her through the trying ordeal, with my consent substituted digitalis for a month succeeding. I may add that, having called on her six weeks after delivery, I found again the old familiar presystolic murmur. I decided on caffeine as her heart tonic, from the fact, that previously digitalis had on several occasions caused her nausea and loss of appetite. How much this heart tonic had to do with her full term safe delivery I cannot say; but it seemed hardly possible to me that a woman with mitral stenosis, and a failing heart at the seventh month, could without some such assistance have happily completed gestation, and the citrate of caffeine seemed to meet the indications perfectly.

In combination with squill and acetate of potash its diuretic effects were well marked.

Used alone, as compared with digitalis, I did not think its diuresis so well marked. In one case of combined aortic and mitral regurgitation, where there existed much precordial pain and distress, where relief to this latter symptom did not follow the administration of digitalis, the patient asserted that the substitution of caffeine was a most happy one, since his cardiac pain vanished on the third day of its administration.

With sulphate of sparteine I have had but one experience, not having been able to procure the drug, a fact I regret, since the reports of Prof. Germain Sée would lead us to believe that its tonic effect on the heart was remarkable. He announced firstly that its reparative effect on the heart and pulse was more marked, prompt and lasting than digitalis or convallaria; secondly, that in the immediate regularization of the cardiac rhythm no remedy can compare with it; and thirdly, that it was acceleratory of the heart beats.

My one experience was on a patient suffering aortic regurgitation and obstruction and also mitral regurgitation. The heart was enormously enlarged, and its tumultuous, irregular, intermittent action, 96 to the minute, most distressing to the patient.

Anasarca was general, ascites to a moderate degree, and edema at the base of both lungs. Here I thought was a heart whose rhythm needed control, and confident in the recommendation of Prof. Sée, I administered one-half grain of the sulphate of sparteine three times daily, and I must say with disappointment. The pulse remained intermittent, full at one beat, empty at another, and as before 96 to the minute. After three days trial I substituted digitalis and the bromides with good effect. But one may judge nothing from one case, and indeed this case may not have been an appropriate one for the remedy.

Immediately upon reading the paper of Professor Fraser, of Edinburgh, on the remarkable results achieved by him with strophanthus in the treatment of cardiac dropsies, Mr. J. M. Good, of St. Louis, procured from Lehn & Fink, of New York, a reliable tincture made by Merck, of Darmstadt, this being the preparation which I have used in twenty-one cases of various cardiac disturbances.

Professor Fraser's general conclusion was that whilst it was a true heart tonic, like digitalis, unlike the latter it did not increase arterial tension.

Dr. Leon Rosenbusch, in the *Berliner Klinische Wochenschrift*, Feb. 13, 1888, makes the following conclusions: 1. It has a marked action upon the heart, increasing the power of and lengthening the systole, increasing the arterial tension and slowing the heart's action. 2. It strengthens the heart muscles and regulates its work. 3. It acts as a diuretic in cardiac disease, but very feebly in kidney disease. 4. It does not disturb digestion as other heart poisons do, especially digitalis. 5. It may be given for weeks without giving rise to cumulative action. 6. It is best employed in the form of a pure tincture in doses of 10 to 20 drops three times daily. 7. It is less vigorous in its action than digitalis, and is therefore indicated especially in those cases in which digitalis has not yet been tested. 8. It maintains, especially in severe disturbances of compensation, the effect of digitalis which has previously been administered. 9. The alcoholic tincture should be employed. 10. In stenosis of the aortic valves its action is negative: as it lengthens still more the systole, it should not be employed in this disease.

With these conclusions, I may say that my own humble experience mostly coincides. I am not sure however that it increases arterial tension, for it is in a class of cases where arterial tension is a marked feature, namely, chronic diffuse nephritis with sequential heart disturbances that I have seen the most brilliant effects in slowing the heart's action. I refer particularly to one of the phases of Bright's disease with general arterial sclerosis and hypertrophied heart, wherein sudden attacks of painful palpitation with pulse extremely irregular and increased to from 120 to 160 beats per minute, possibly a uremic phase, lasting sometimes for days, nearly always accompanied with a nausea that rejects digitalis. In four such cases five drop doses of tincture strophanthus repeated every six hours, rapidly slowed the heart, produced a regular pulse, and increased the flow of urine.

It might, therefore, seem that since it controlled these hypertrophied hearts, it had a marked influence on the cardiac ganglia. In a case of acute dilatation of the heart, the first attack occurring without discoverable cause at the menopause in a lady whom I have treated in three such attacks, the first two with digitalis and the last with strophanthus, the latter acted far more promptly and far more agreeably to the patient.

It has advantages over all the other cardiac tonics in its palatability, smallness of dose, and acceptance by the stomach. I have not seen the astonishing diuretic results reported by Prof. Fraser, where after one full dose, the secretion of urine continued to augment for several days. After all neither strophanthus nor other heart tonic can be compared in power to digitalis.

They have certain advantages, they act more promptly, they are not cumulative, they are better borne, caffeine and strophanthus do not nauseate and do not require the careful supervision of the physician as does digitalis. Hence where a gentle cardiac tonic is to be exhibited for a long time, one other than digitalis would seem to be indicated. They are therefore very valuable allies. But when the heart is trembling on the verge of fatal asystole, when its quivering muscular fibres have almost given up the contest against the unyielding obstruction, no such powerful reinforcement has yet appeared on the field as digitalis.

When on the other hand it has lent its power to the heart, and its cumulative effect is dreaded, or the digestive tract is disturbed by its presence, the compensation that it has effected can then best be carried on, I think, by *strophanthus*.

AN ANALYSIS OF ONE HUNDRED CONSECUTIVE AMPUTATIONS.

BY PINCKNEY FRENCH, M. D., MEXICO, MO., *Assistant Prof. of Surgery, St. Louis College of Physicians and Surgeons.*

[*Read before the Missouri State Medical Association, April 1888.*]

THE word amputation is applied to any operation having for its object the removal of an offending part from the remainder of the body. Amputation is dismemberment, partial and complete. Amputation of the cervix uteri, of penis, of female breast, are allowable terms. With these exceptions the term is confined exclusively to operations for removing the whole or part of one of either the upper or lower extremities. The celebrated French surgeon, Velpeau, termed amputation the last resource of surgery. The people and some thoughtless physicians speak of it as an opprobrium of the art. Some one justly and truly said: "that to have saved one limb is more credit to a surgeon than to have removed, no matter how skillfully, a hundred." The advice to a patient to submit to amputation is a surgeon's confession of failure to effect a cure by other means. When the victim of disease or injury is directed to choose between the removal of a limb and certain death "he will" as Velpeau significantly remarked, "probably choose rather to live with three limbs than to die with four." In other cases we propose and patients accept amputation which, though not essential to preserve life, affords the only reasonable prospect for placing them in a condition such as would render life either agreeable to themselves or useful to others.

Improvements in modern surgery "have removed from the field of amputation many cases in which the operation was formerly considered imperative." The discovery and the introduction of anesthesia and improved methods of dressing wounds have rendered amputation a much less dreadful operation, and

made it applicable to many cases which in the thirties would have been abandoned as entirely hopeless and left to perish without treatment. To-day, it is doubtful if any other operation in surgery has upon the aggregate afforded as much relief or saved as many lives.

This operation was known to the ancients. Hippocrates, explicitly describes it. He cut away simply the dead tissue. Celsus, who was by far the most brilliant and practical of ancient surgeons, made the division between the living and the dead parts, rather taking some living tissue than to leave dead tissue. This surgeon was the first to mention the ligature of an artery. Galen, and others who lived after him, ignored his teaching and practice, and reverted to the old Hippocratic doctrines. It is interesting to copy a translation quoted in the sixteenth century from an Arabian surgeon, who lived in 1510; this quotation contains the earliest reference to the induction of anesthesia by inhalation, and the use of cloths to prevent the injurious effect of the atmosphere. "The manner to cut the corrupt member is this: First, ye must prove with a provet how the mortification of the member goeth; and afterwards yee must cut the member circle-wise in the fleshie and musculous parts; and ye must dissever somewhat the flesh from the bone in the over part of the member; and afterwards cutte the rotten flesh from the bone by piece-meal, and cover the borders with warm cloths that they be not hurt by the ayre. Then you must compasse about the over part with your hands and reduce the flesh circle-wise and sawe the bone as highe as yee canne with a sawe of sharp teeth, which done, ye must cauterize the cut place unto the whole parte; and afterwards ye must cauterize the bone and then cure the wounde as other burned wounds are cured; and because that some command to annoint the member before incision by application of medicine wherein opium entereth or by smelling of a sponge wherein opium is, that the whole boddie may bee brought asleep, ye shall understand they enterprize a dangerous business, for this disease sometimes chaunceth of the medicine made with opium as writers affirm. Nevertheless a member may be bound afore incision in the upper part because of ye course of ye blood."

It will be seen that the teaching of Celsus was soon forgotten.

Shears and chisel were brought into play, and lasted until about the fifteenth century. By means of these instruments the member was severed at one stroke. Ambroise Paré, France's great army surgeon first clearly taught the use of the ligature to the arteries. Paré was born 1509, died 1590. Caution fell into disuse. The next invention was the tourniquet or grip-stick, as it was called. This was simultaneously by Morel of France, and Young of England, in 1674. The circular operation was the mode of the ancients. Prof. Lowdham of Exeter, England, was first to suggest the flap operation; this was in 1679. The original method of Prof. Lowdham was a single flap operation, and is to-day in its modified form occasionally done. The double flap operation is the one usually practised. Believing the particular form of operation chosen to be of slight importance, it would be idle to encroach upon the limits of this article by describing in detail the relative advantages of different modes of amputating. Being familiar with all the methods will enable the surgeon to choose that which is most appropriate to each particular case. Not unfrequently we have cases of double injury requiring amputation. Except when the hands or feet are involved these are not usually successful. Eleven such cases of major amputations in the hands of Prof. John Ashhurst gave seven deaths and four recoveries. Ten such operations in my own practice have given six deaths and four recoveries, as shown by the annexed table.

No.	Name.	Age.	Part Amputated.	Cause.	Result.	Remarks.
1	H. S.	19	Leg, lower third. Hand, through palm.	Railway Injury.	R	
2	H. M.	36	Upper third thigh. Shoulder joint.	" "	D	9 hrs.
3	T.C.W.	10	Leg above ankle. Chopart's amp't.	" "	R	
4	C. W.	32	Thigh, lower third. Leg, upper third.	" "	D	12th d. Gangrene.
5	F. B.	9	Both legs, middle third.	Mowing machine.	R	
6	E. M.	14	Thighs, lower third.	Railway Injury.	D	1 hr.
7	S.C.F.	33	Thigh, lower third. Leg, upper third.	" "	D	Gangrene.
8	E. H.	18	Thigh, lower third. Leg, upper third.	" "	R	
9	C. W.	35	Leg, mid. third.	" "	D	18 hrs.
10	H.E.D.	19	Knee-joint. Leg, upper third.	" "	D	12th day.

The rate of mortality after amputation has always been a favorite study of the practical surgeon.

Statistics show conclusively that this mortality is steadily diminishing, due to the use of anesthesia and improvements in dressing. When we reflect that a large proportion of our operations are done for injuries of the very gravest character and such as were unknown to our predecessors, it will be seen that the improvement is more striking.

Statistics is so dry and dusty a science that it is perhaps the last place where one would go to look for the history of the success of surgery in which each good and honest surgeon cannot help being interested. Out of the tables of figures which men of one idea have so laboriously constructed it is possible to find information with which true scientific men ought to sympathize, and to discover records which no doubt specialists never intended to put there. The mortality increases with advancing age. Amputations in children from five to fifteen years of age are generally successful. The remarkable cases of synchronous amputations which are here reported would not have ended in recovery had the subjects been adults. Of all the conditions which determine the result of amputation none have more influence than age. The percentage of mortality at different ages is presented by all our authors. We direct attention to the fact that most of the operations here reported were primary amputations. Inclusive of the ten double major amputations it will be observed that the report contains twenty-eight double amputations, and the six deaths mentioned cover the rate of mortality. The success which attended the amputation of fingers or thumbs in the author's hands is noted by comparing with the following table which shows the mortality of such operations.

FINGERS AND THUMBS.

Authority.	Cases.	Deaths.	Mortality per cent.
Malgaigne.....	165	15	9
Legouest.....	320	45	14
Otis.....	5739	129	2.2
Aggregates.	6224	189	3
French.....	32	0	0

Likewise notice the mortality which attends partial amputation of the hand.

PARTIAL OF HAND.

Authority.	Cases.	Deaths.	Mortality per cent.
Malgaigne.....	9	1	11.1
Legouest.....	53	21	39.6
Otis.....	950	50	5
Morton.....	58	0	0
Ashhurst.....	13	0	0
Aggregates.....	1083	72	6.6
French.....	9	0	0

Table showing the mortality of amputations at the wrist-joint.

Authority.	Cases.	Deaths.	Mortality per cent.
Malgaigne.....	16	0	0
Trelat.....	27	6	22.2
Legouest.....	77	36	46.7
Otis.....	66	7	10.6
Ashhurst.....	1	0	0
Aggregates.....	189	49	26.31
French.....	2	0	0

Amputation at the wrist is very seldom done either in civil or military practice. The rate of mortality after amputation of the forearm is shown by the following table:

Authority.	Cases.	Deaths.	Mortality per cent.
Malgaigne.....	28	8	28.5
Trelat.....	44	16	36.3
Golding Bird.....	84	14	16.6
Callender.....	64	3	4.6
Holmes.....	56	7	12.5
Spence.....	47	11	23.4
Chadwick.....	68	13	19.1
Gorman.....	37	5	14.2
Varick.....	14	2	14.2
Morton.....	165	18	10.9
Legouest.....	447	202	45.1
Otis.....	1748	245	14.
Ashhurst.....	18	5	27.7
Aggregates.....	2820	549	19.4
French.....	5	0	0

In amputation of the arm no attention was paid to the assertion that removal through lower third possessed exceptional gravity as compared with removal at middle or upper third.

Table showing death rate of amputation in the arm:

Authority.	Cases.	Deaths.	Mortality per cent.
Malgaigne.....	91	41	45
Trelat.....	141	60	42.5
Golding Bird.....	91	24	12.3
Callender.....	78	10	12.8
Holmes.....	51	14	27.4
Spence.....	42	15	35.7
Chadwick.....	76	14	18.6
Gorman.....	52	14	26.9
Varick.....	15	7	46.6
Morton.....	157	32	20.3
Legouest.....	1142	559	48.9
Otis.....	5327	1273	23.8
Ashhurst.....	21	6	28.5
Aggregates.....	7284	2069	28.4
French.....	6	0	0

Ledran made amputation at shoulder joint more than one hundred and fifty years ago. It is only within the last seventy five years that it has been recognized as a regular operation in surgery. In military practice the operation has been peculiarly successful. One of its most earnest advocates was Baron Larrey.

Table showing the result of amputation at the shoulder-joint:

Authority.	Cases.	Deaths.	Mortality per cent.
Malgaigne.....	13	10	76.9
Trelat.....	27	17	62.9
Legouest.....	207	135	65.2
McLeod.....	173	69	39.8
Otis.....	841	246	29.2
Spence.....	27	9	33.3
Golding Bird.....	11	4	36.3
Buttie & Macready.....	7	3	42.8
Morton.....	30	9	30
Chadwick.....	26	11	42.3
Gorman.....	20	8	40
Ashhurst.....	5	2	40
Aggregates.....	1387	523	37.7
French.....	2	2	100

The death rate of shoulder-joint amputation is less than amputation of the thigh and greater than amputation of the leg. I have been peculiarly unfortunate, both of my operations having been complicated with other serious injuries.

I have done no amputations above the shoulder.

Table showing the mortality in amputations of toes:

Authority.	Cases.	Deaths.	Mortality per cent.
Otis.....	790	6	0.7
Legouest.....	370	70	18.9
Aggregates.....	1160	76	6.5
French	7	0	0

Table showing mortality in partial amputation of foot.

Authority.	Cases.	Deaths.	Mortality per cent.
Otis.....	119	11	9.2
Hancock.....	174	13	7.4
Legouest.....	255	97	38.
Larger.....	80	23	28.7
Aggregates.....	628	144	22.9
French.....	9	0	0

I have not done Symes' amputation: I was assistant in the operation on one occasion. The flaps sloughed and re-amputation was made in middle third of leg. It may have been that the branches of the plantar arteries were not cut sufficiently long, and that thereby the vitality of the flap was impaired. The failure which attended the operation in this case has deterred me from resorting to it. I have done Pirogoff's amputation once, and include the case in the table on partial amputations of the foot.

Table showing results of amputation in the leg:

Authority.	Cases.	Deaths.	Mortality per cent.
Malgaigne.....	192	106	55.2
Trelat.....	418	184	44
Golding Bird.....	271	97	35.7
Callender.....	193	61	31.6
Holmes.....	137	44	32.1
Spence.....	66	18	27.2
Chadwick.....	267	66	24.7
Gorman.....	71	23	32.3
Varick.....	15	7	46.6
Morton.....	314	106	33.7
Legouest.....	930	478	51.3
Otis.....	2348	611	26
Ashhurst.....	25	3	12
Aggregates.....	5247	1804	34.3
French....	21	0	0

(Except when double).

Table showing results in amputation of the thigh:

Authority.	Cases.	Deaths.	Mortality per cent.
Malgaigne.....	206	126	62.6
Trelat.....	360	190	52.7
Golding Bird.....	370	132	35.6
Callender.....	233	80	35.3
Holmes.....	220	81	36.8
Spence.....	186	64	34.4
Chadwick.....	236	68	28.8
Gorman.....	89	48	53.9
Varick.....	38	19	50.
Morton.....	137	46	33.5
Legouest.....	1919	1686	87.8
Otis.....	1597	1029	64.4
Ashhurst.....	20	8	40.
<hr/>			
Aggregates..	5606	3577	63.8
<hr/>			
French.....	9	5	55

I have made no hip joint amputation.

The above tables are from the International Encyclopedia of Surgery.

Since the days of Ambroise Paré, who first taught the systematic use of the ligature, there has been a variety of materials used for that purpose. Cooper, Lister and Barwell of England; Physic, Eve and Levert of our own country, have each advocated the use of favorite materials for ligatures. Torsion, after the manner of Mr. Bryant of Guy's Hospital, has also secured the approval of some. It matters but little about the composition of the ligature so that it is proficiently and correctly applied. In the cases reported, the silk and whale tendon were used, the latter only to the smaller vessels. Diversity of opinion still exists as to the propriety of using sutures in amputation; and the cat-gut, iron-wire, silver, silk, etc., each have their advocates. If judiciously applied they are beneficial in assisting to so coaptate and approximate the parts as to facilitate speedy union. If injudiciously applied, and I mean by this too tightly, they are positively injurious and favor the development of traumatic fever. With a view to rapid union silk sutures have been used in every case included in this report. Except in the beginning of my practice I have not used adhesive plasters for the purpose of adjusting flaps in amputation. They should be condemned. They are uncleanly, difficult of removal and in other respects objec-

tionable. The bandage can do quite as much, and is attended with no objections.

Various methods of dressing stumps have found favor with American surgeons, all of which are an improvement on the old plan of smearing lint with some ointment. The cold-water dressing introduced by Liston, of England, had many advocates in this country, but is now almost wholly abandoned. The continuous baths of Langenbeck and Lefort, revived by Prof. Frank Hamilton, and carbolyzed by Dr. Verneuil, of Paris, are still in use. The air-dressing of Dr. Teale and Humphry, and so ably advocated by Sir J. Y. Simpson, long ago fell into disfavor by reason of the bacterian theory. The plan suggested by the great army surgeon, Larrey, that of excluding the air and thus comparing the wound to a subcutaneous operation, has, so far as my reading goes, failed to secure favor with American surgeons. It will be observed that the latter mode is in direct contrast with the one just mentioned. The perchloride of iron and charpie dressing, followed by applications of aromatic wine, recommended by Bourgoode, of Paris, aims only at secondary union. The distinguished Frenchman has no imitators in this country. The open method of Prof. J. R. Wood of New York, is open to the same objection. Antiseptic dressings include the methods of Prof. Lister, of England, which consists in the application of consecutive layers of carbolyzed gauze, and Prof. Guérin of Paris, which consists of consecutive layers of cotton wadding. Both rest upon precisely the same principle, the belief in the noxious influence of bacteria: the necessity of excluding them from wounds forms their basis. Antisepsis means cleanliness. The agents in use are hydrargyrum bichloride, carbolic acid, iodine, etc. Bordeaux's method is a combination of the last two. The earth dressing of Dr. Addinel Hewson has not been extensively adopted.

These various and dissimilar modes have been lauded to the skies by their originators and advocates, who have shown by clinical experience the superiority of their methods. The legitimate inference to be drawn from a consideration of these measures is that after all the particular mode in which a stump or wound is dressed has comparatively little to do with the result.

My dressings have been exceedingly simple, consisting of borated cotton, clean muslin cloths with strict observance of cleanliness, secured by perfect drainage and repeating the dressings sufficiently often.

The affections for which the operation of amputation is required are so various that were they stated, as is common with authors in a paper like the present, it would lead far beyond its proper scope. It will be quite sufficient, we believe, to direct attention to the fact that in most of the cases here reported the operation was performed on account of lacerations and compound and other injuries.

The exceedingly delicate and important question involved in determining the propriety of a resort to amputation rests upon circumstances so numerous and variable that it is next to impossible, in a brief paper like this, to point them out. The nature seat, extent, duration of the disease or injury, the constitution, age, habits and circumstances, condition of the viscera, locality, etc., each one in some particular case and on some particular occasion will exercise a governing influence in the judgment of the surgeon and while each and all are of the greatest practical importance they cannot receive the necessary consideration in a paper like this. The place of election or choice of site for the amputations here reported was altogether the place of necessity. The injuries for which the operations were done left no several points at which the limb might be removed, but in the majority of them the point selected was that which combined the best chance of the patient's recovery and the formation of a good, sound and serviceable stump.

Conservative surgery has accomplished much in many instances but in this class of injuries it cannot be carried to the extent exercised in other classes. In the cases of railway injury it has its limits beyond which it cannot safely go, in view of the fact that railroad accidents are extremely liable, if an attempt be made to save the limb, to be followed by bad results. We point with some pride, however, to the fact that in no case where an attempt was made to save a limb was it unsuccessful, and in no case was a life sacrificed. It is a principle of surgery, long and well established, that in injuries resulting from the application

of heavy bodies, such as railway cars, we must always cut above the laceration, as the injury in such cases is much more extensive than it appears to be. We have found limbs perfectly free from contusion and wound externally, or but slightly injured, in which the mischief was deep-seated and upon careful examination found to involve nearly every important structure, and the limb to be hopelessly injured. Obviously such cases require the closest scrutiny with the view of detecting their true nature and proper management. In this connection we have been exceedingly fortunate, never having performed a re-amputation. We have never amputated in a compound fracture that did not involve an important joint. We have seen sufficient of these cases to satisfy us that if judiciously managed they will recover with a very useful limb, even where there has been extensive loss of soft substance and comminution of bones. In presenting the report of one hundred cases of amputation the object is to show facts as recorded in experience and observation in private practice. Though not able to add much to the general knowledge, the number of cases presented is respectable, and should have some little weight in establishing reliable statistics. My employment as railway surgeon for many years enables me to report a number of cases, which under other circumstances, would be difficult. The cases are not selected but are consecutive ones, taken from my note-book and my record of railway reports, and are simply an exhibit of experience and observation in private practice. No antiseptic used.

No.	Age.	Name.	Part Amputated.	Occupation.	Results.
1	30	J. N. B.	Leg, upper third.	Brakeman.	R
2	45	D. B.	Middle finger.	Section man.	do
3	18	J. H. W.	Fore and middle finger.	Brakeman.	do
4	35	J. M.	Third and little finger.	Carpenter.	do
5	31	G. Mc.K.	Middle finger.	Brakeman.	do
6	33	R. C.	Through metatarsal bones.	Section man.	do
7	51	R. S.	Thigh, middle third.	Merchant.	D
8	19	H. S.	Leg, lower third; hand, palm.	Clerk and farmer.	R
9	20	J. H. W.	Fore and middle fingers.	Brakeman.	do
10	52	J. T. P.	Forefinger.	Stockman.	do
11	28	B. F. H.	Ringfinger.	Brakeman.	do
12	38	W. T. P.	Ring and little fingers.	Machinist.	do
13	35	W. K.	Leg, middle third.	Drummer.	do
14	27	S. B.	Third and little fingers.	Section man.	do
15	33	A. E.	Leg, lower third.	Tie man.	do
16	25	J. H.	Thumb.	Farmer.	do
17	30	G. B.	Chopart's operation.	Tramp.	do
18	25	H. L.	Thumb and two fingers.	Yard man.	do
19	37	J. M. B.	Forearm middle.	Conductor.	do
20	45	B. W. B.	Fore and middle fingers.	Com. man.	do
21	18	H. G.	Index, middle and third fingers.	Brakeman.	do
22	16	S. D.	Leg, middle third.	Boy.	do
23	36	H. M.	Thigh, upper third and shoulder joint.	Tinner.	D
24	31	W. F.	Middle finger, part of hand.	Brakeman.	R
25	33	J. W. C.	First and second fingers.	Brakeman.	do
26	14	S. A.	Through instep.	Laborer.	do
27	35	G. T.	Arm, upper third.	Engine coaler.	do
28	10	T. C. W.	Leg, lower third; foot instep.	Boy.	do
29	22	W. H.	Thumb.	Track repairer.	do
30	32	C. W.	Thigh, lower third; leg, upper third.	Hotel porter.	D
31	30	S. M. D.	Arm, middle third.	Brakeman.	R
32	26	R. J.	Forearm, mid.	Farmer.	do
33	24	E. H.	Wrist-joint.	Saw-mill man.	do

No.	Age.	Names.	Part Amputated.	Occupation.	Results.
34	9	F. B.	Middle third, both legs.	Boy.	R
35	25	C. P.	Thumb and forefinger.	Fireman.	do
36	27	H. F.	Ring and little fingers.	Brakeman.	do
37	32	P. M.	Hand, through metacarpal bones.	Tramp.	do
38	19	P. S.	Thigh, upper third.	Farmer.	do
39	26	L. U.	Arm, upper third.	Miner.	do
40	28	O. R.	Arm, upper third.	Farmer.	do
41	36	J. G.	Shoulder joint.	Brakeman.	D
42	12	G. N.	Thigh, upper third.	Boy.	R
43	10	E. B.	Fore and middle fingers.	Boy.	do
44	11	W. R. J.	Leg, upper third.	Boy.	do
45	14	E. M.	Both thighs, middle third.	Bootblack.	D
46	30	S. B.	Fore and middle fingers.	Brakeman.	R
47	28	A. E.	Leg, middle third.	Brakeman.	do
48	18	J. H.	Chopart's operation.	Section man.	do
49	26	P. J.	Leg, upper third.	Fireman.	do
50	35	J. M.	Leg, lower third.	Section man.	do
51	27	O. K.	Metacarpal bones	Conductor.	do
52	35	R. L.	Wrist joint.	Conductor.	do
53	48	G. W. S.	Three toes.	Conductor.	do
54	32	J. E. D.	Forefinger.	Brakeman.	do
55	30	C. B.	Middle finger.	Brakeman.	do
56	17	C. D.	Metacarpal bones.	Saw-mill laborer.	do
57	33	S. C. F.	Thigh, lower third; leg, upper.	Brakeman.	D
58	28	R. M.	Forearm, lower third.	Farmer.	R
59	45	P. A.	Leg, middle third.	Showman.	do
60	30	O. B.	Leg, lower third.	Lumber man.	do
61	37	P. H.	Middle and forefingers.	Section man.	do
62	20	D. C.	Leg, middle third.	Section man.	do
63	19	D. I.	Thigh, middle third.	Brakeman.	do
64	28	S. Mc. D.	Arm, upper third.	Brakeman.	do
65	14	P. G.	Through instep.	Boy.	do
66	12	T. G.	Three toes.	Boy.	do

No.	Age.	Names.	Part Amputated.	Occupation.	Results.
67	18	E. H.	Thigh, lower third; Leg, upper third.	Farmer.	R
68	37	D. P.	Leg, middle third.	Depot agent.	do
69	18	W. H.	Forearm, middle third.	Telegraph operator.	do
70	13	B. T.	Metatarsal bones.	Boy.	do
71	32	P. G.	Great toe.	Stockman.	do
72	31	M. B.	Great toe.	Wife real estate agent.	do
73	40	J. H.	Great and second toes.	Merchant.	do
74	11	M. M.	Chopart's operation.	Girl.	do
75	27	E. C.	Great and small toes.	Woman.	do
76	35	C. W.	Both legs, middle third.	Farmer.	D
77	28	P. B.	Thigh, middle third.	Railroad hand.	do
78	45	J. C.	Metatarsal bones.	Railroad hand.	R
79	27	— G.	Leg, middle third.	Tramp.	do
80	12	N. G.	Instep.	Boy.	do
81	30	A. M.	Thigh, lower third.	(Hospital).	do
82	21	R. M.	Fore and middle fingers.	Planing-mill hand.	do
83	17	H. E. C.	Leg, lower third: knee joint.	Farmer boy.	D
84	30	R. T. C.	Index, middle and ring fingers.	Brakeman.	R
85	24	E. S.	Arm, middle third.	Brakeman.	do
86	*	B. Y.	Toe on each foot.	* 2 months baby.	do
87	20	J. R. F.	Middle, ring and little fingers.	Brakeman.	do
88	40	A. C.	Thumb.	Woman.	do
89	8	N. H.	Forearm, lower third.	Girl.	do
90	20	C. E. G.	Part of hand.	Hunter.	do
91	28	F. H.	Part of hand.	Well-digger.	do
92	45	P. E.	Thigh, lower third.	Policeman.	D
93	5	E. M.	First finger.	Boy.	R
94	8	A. C.	First and second fingers.	Boy.	do
95	5	E. M.	Part of hand.	Girl.	do
96	67	O. L.	Thigh, middle.	Farmer	D
97	40	W. F.	Little finger.	Farmer.	R
98	30	H. B.	Part of hand.	Laborer.	do
99	13	(Negro)	Thigh, lower third.	Boy.	D
100	22	G. H. B.	First and second fingers.	Farmer,	R

EDITORIAL.

THE DYSPNEA OF ASTHMA AND BRONCHITIS : ITS CAUSATION AND THE INFLUENCE OF NITRITES UPON IT.

Dr. J. R. Frazer, of Edinburgh, contributes an article to the *Amer. Jour. of the Medical Sciences* (Oct., 1887, Feb. 1888), in which he remarks that of the many theories that have been advanced to explain this symptom occurring in the above mentioned diseases, the three prominent ones are those of bronchial spasm, of spasm of the diaphragm, associated or not with spasm of the other ordinary or extraordinary muscles of respiration; and of constriction of the bronchial tubes by swellings of a hyperemic, herpetic or urticaria like character. The second theory can not explain the physical signs associated with these conditions; there can be no doubt that there is a constriction of the smaller bronchi, but whether this is due to a spasm of the muscular elements of the tubes or to a thickening of the mucous membrane resulting from a serous transudation, is the point of contention. In the absence of evidence of the existence of any substance that rapidly and distinctly modifies the contractility of the bronchial tubes, the analogy in structure and nerve relationship between the bronchial nerves and blood vessels suggested that the most appropriate substances to be employed for the purposes of investigation would be those which are capable of modifying the contractility of blood-vessels by direct contact with them. The nitrites were accordingly used in his observation. Administering them in appropriate doses in cases of simple asthma, he found that the pathognomonic

sign of this disease disappeared or diminished coincidently with the complete or partial relief of the oppression and with the effect on the circulation as detected in the pulse. In one case, in which the nitrites produced no effect, the ronchi and sibili, together with the prolonged expiration, were unaffected.

The dyspnea in certain cases of bronchitis is due to mechanical obstruction of the tubes by secretion; but in others in which there were sibilant and sonorous rales with both respiratory acts and prolonged expiration, the relief of subjective symptoms and synchronous disappearance of the physical signs of asthma were as decided as in cases of simple asthma.

The results of these observations indicate clearly that the cause of the dyspnea in asthma and certain forms of bronchitis is bronchial spasm, for if it were swelling of the mucous membrane, the nitrites would, by virtue of their effect on the circulation, aggravate, rather than relieve the symptoms. In bronchitis the nitrites were in no instance observed to increase the inflammation; on the other hand, general relief to the patient was invariable and rapid, and in a few cases a cure was brought about by their almost unaided influence. On theoretical grounds, however, where marked tendency to bronchial or pulmonary hemorrhage exists, they may increase this tendency and, therefore, prove injurious. Relief was obtained almost as quickly, and was more lasting when the remedy was administered internally than when inhaled. For this reason, and on account of their stability, the nitrite of sodium and nitroglycerine are to be preferred. In all cases the effect on the physical signs lasted but for a short while, but relief from dyspnea was experienced for a long time after the ronchi and sibili had returned, in many cases as long as several hours. The administration of a nitrite does not, therefore, require to be a frequently repeated one, as the dry râles, which sometimes quickly reappear, are still for a long time present only in a degree and amount which is much less than they originally possessed. It is, in most cases, unnecessary to administer the nitrite that is selected more frequently than every three or four hours.

L. T. S.

NOTES ON THE PAST AND PRESENT MORTALITY AND TREATMENT OF PNEUMONIA.

Dr. Henry Hartshorne, of Philadelphia (*Med. News*, April 7), endeavors to arrive at a correct estimate of the comparative value of the old and modern methods of treating acute inflammatory affections, with pneumonia as a type, by reference to the mortality statistics of the two periods.

Between 1845 and 1855, the accepted treatment of pneumonia was what was then called moderately antiphlogistic, including early and moderate abstraction of blood in patients of good strength, and not over middle age, early purgation with some active cathartic medicine, and then the use of agents, chiefly mineral salts, to promote and maintain the action of the skin, kidneys and bowels, very little use of opium being made, unless at a late stage, and quinine being reserved for that period as a tonic, alcoholic stimulation being resorted to only in cases of exceptional prostration, as in aged patients, or in those of enfeebled constitution, in whom a severe and prolonged attack brought on decided exhaustion. Under this treatment, in private practice, uncomplicated cases very generally recovered; and in hospitals, their mortality was hardly more than 1 in 10, often much less.

First came the movement of reaction against blood-letting, then the introduction of the early and free use of alcohol, and, finally, the era which still continues, of physiological rationalism in therapeutics; and, as a result, the predominant method of treatment of today is characterized by the following features, the practically universal omission of venesection, and the very rare local abstraction of blood, the general disuse of active cathartic remedies in the early stage; by perhaps a majority of physicians the early and continued use of alcohol, to the extent of from 2 to 12 fluid-ounces in 24 hours; quinine, mostly in 10 to 20 grains doses, once or twice daily; opium or morphia from the start or near it, on an average, perhaps, of one-twelfth to one-eighth grain of morphia every three

or four hours; with deviations from this general plan, or additions to it, by the use of antipyrin, antifebrin, aconite, digitalis, etc., and warm applications or counterirritation to the chest.

A careful study of the statistics under the old régime shows an average mortality, during the second quarter of this century, of not more than 8.33 per cent.; while the recent and present death-rate in the large hospitals in this country is rarely below, more often above, 25 per cent, and the returns of the Collective Investigation Committee of the British Medical Association, from private practice, show it to be 18 per cent. This increase in mortality can hardly be accounted for by a supposed modification of the records through improved methods of diagnosis, nor by a change of type of the disease, for there is no reason for denying that pneumonia is positively the same disease that it was 40 or 50 years ago; but the cause is rather to be found in the simultaneous change in the principles underlying the treatment of this disease. In recent therapeutics the difference between the debility of *oppression* in the early period of severe attacks of acute disease, and the *exhaustion* which belongs to a latter stage of the same, has been practically ignored. The early and free use of alcohol is most injurious; instead of applying the whip to the heart already embarrassed by an excessive load, and thus predisposing to early and sudden exhaustion, rather attempt to lighten the burden of oppression imposed upon this organ, and thus make it possible for it to carry its load without exhaustion. The author does not assert that venesection is called for in nearly all cases, but believes that early local depletion will do good in the majority, in young and middle-aged patients who were previously in good health, not only by relieving the heart's embarrassment, but also the activity of the inflammation itself.

The depreciation of the utility of early active catharsis, as an eliminative agency, and of the so-called refrigerant medicines for lowering blood pressure and promoting the functional activity of the skin and kidneys, as well as of the bowels, is to be deplored.

Already testimony is accumulating as to the failure of the use of quinine in antipyretic doses in the treatment of pneumonia; it is indicated in the later stages only as a tonic. Alcohol is indicated only exceptionally at the beginning in persons of lowered vitality or bad habits, and in old age; more frequently at a late stage, when real exhaustion is imminent. An especially injurious error in the modern method of treatment consists in the early administration of opiates, their tendency to diminish bronchial secretion stands right in the way of their utility. Statistics show the greatest mortality for the opium treatment of pneumonia. The results of experiments with antipyrin, antifebrin, etc, as antipyretics, do not correspond with what is desired of them as remedies for acute organic inflammation; as neurotic medicines, however, they possess much value.

L. T. S.

INVESTIGATIONS RELATING TO THE ETIOLOGY AND PROPHYLAXIS OF YELLOW FEVER.

Dr. George M. Sternberg has spent the past year investigating for our government the claims of Freire, of Rio Janeiro, and those of Valla, of Mexico, to have discovered the specific cause of and a protective vaccine against this disease. In an address recently delivered before the College of Physicians of Philadelphia, he makes public the results of his work, which are as follows:

“The researches made up to the present time have failed to demonstrate the constant presence of any micro-organism in the blood and tissues of those attacked.

“My own researches show that no such micro organism as Dr. Domingos Freire, of Brazil, has described in his published works or as he presented to me in his yellow fever germ at the time of my visit to Brazil, is found, as he asserts, in the blood and tissues of typical cases of yellow fever.

“There is no satisfactory evidence that the method of inoculation practised by Dr. Domingos Freire has any prophylactic value.

"The claims of Dr. Carmona y Valla, of Mexico, to have discovered the specific cause of yellow fever have, likewise, no scientific basis; and he has failed to demonstrate the protective value of his proposed method of prophylaxis."

Dr. Sternberg soon leaves for Havana to continue his investigations into the causation of this disease.

L. T. S.

LIPANIN.

According to the investigations of Buchheim, cod liver oil possesses no other effect than that of a fat. Its advantage over other fats is due to the existence of free fatty acids, which are transformed into soaps immediately upon meeting with an alkali, without the influence of the pancreatic secretion, and facilitate its emulsion. The brown oils are preferable to the clear preparations on account of their greater richness in these fatty acids. On the basis of these considerations, Prof. v. Mehring, of Strassburg, has devised a substitute for cod-liver oil, consisting of a mixture of olive oil with 5 to 6 per cent oleic acid, which is manufactured in Berlin under the name of lipanin. It has a pleasant taste, is well borne by children and adults, in the same doses as cod-liver oil, for a long time, and appears to have the same nutritive value as the latter.

L. T. S.

DETTWEILER'S METHOD OF TREATING CONSUMPTION.

In our last issue we gave in some detail the observations of Dr. Kretzschmar on Dettweiler's treatment of consumption. In the *N. Y. Med. Jour.* April 28, commenting on Dr. K's paper, Dr. T. L. Dix, of Shelbyville Ky., remarks that in the consumptive the dominant feature is the preponderance of the arterial over the venous system, resulting in fibrinosis.

The mountain air, which forms one of the essential factors in the treatment of consumption by the method under discussion,

overcomes arteriosis and produces venosity in two ways: By its attenuation the patient does not receive so much oxygen at each inhalation as when at the foot of the mountain; and also the barometric pressure is diminished to such an extent that at the elevation of the institution at Falkenstein there is a diminution of pressure of nearly one pound to the square inch from that at the sea-level. This leads to an expansion of the superficial veins, and tends to bring the blood from the viscera to the surface so that there is less blood in the lungs to be oxidized at the same time that the quantity of oxygen is diminished.

The value of "resting" depends also on the diminished oxidation and consequent lessened fibrination when the body is at rest.

Finally the rich and liberal diet with milk and cognac, to which so much importance is assigned in this treatment, has its effect by the production of fats within the system to consume the oxygen, and so promotes venosity.

The most practical points in this connection, as well emphasized by Dr. Dix refer to the means that may be made available for patients to whom by reason of expense or otherwise the treatment at a mountain sanitarium is impracticable. Thus the attenuated atmosphere, he suggests, may be simulated by adopting such means as will prevent in part the air from entering the lungs. He instances the case of a gentleman who attributes his cure after having had several hemorrhages in part to the use of a small silver tube which he wore in his mouth.

The diminished atmosphere pressure can be simulated by the use of a cupping apparatus made to embrace the entire body and limbs below the neck or even better by the use of the pneumatic cabinet. The diet should be of carbohydrates, he thinks, with as little of nitrogenous food as may be consistent with health; and finally the patient should be required to maintain a recumbent position as many hours in each twenty-four as his circumstances will admit.

REPORTS ON PROGRESS.

SURGERY.

BY L. T. RIESMEYER, M. D., ST. LOUIS.

Laparotomy for Penetrating Gunshot Wounds of the Abdomen.

—DR. ARTHUR E. J. BARKER reports fifty-eight cases of laparotomy for penetrating gunshot wound of the abdomen, including two of his own practice. Of these twenty-three recovered and thirty-five died. A study of the results of these operations is most encouraging, as they show a greatly lessened mortality year by year, and also that much more desperate cases may be saved by surgical interference than has hitherto been supposed. The following are the cases from the author's own practice:

Case I. A. F., æt. 23 years, was admitted into University College Hospital one-half hour after he had shot himself in the abdomen, suffering from moderate shock. Pulse 56, markedly dicrotous (from subsequent observation this was probably its normal condition.) Temperature 98.2° F. He had not vomited. He lay on his right side with his knees drawn up; his breathing was slow and shallow, with an occasional catch. There was a small bullet wound over the border of the costal cartilages on the right side, one inch from the middle line, at the level of the tip of the ensiform cartilage. The ball was small and conical, weighing 60 grains. There was little or no external bleeding from the wound, and no evidence of fluid in the abdomen except a suspicion of dulness in the right flank, but there was much tenderness on pressure over the abdomen.

The patient was seen two hours after the injury, when he was beginning to recover from shock. Feeling confident from the situation of the bullet wound, that the ball must have entered the abdomen and have struck the liver, and fearing that the slight dulness in the right flank was due to effusion of blood, laparotomy

was decided on. After the arrangements for complete antisepsis were completed, an incision two inches and a half long, over the tip of the ensiform cartilage was made, and on drawing its edges apart the opening in the peritoneum, through which the ball had entered the cavity could be seen. Nearly under this, and at the attachment of the falciform ligament to the liver, was a patch of ecchymosis under the serous covering of the organ, which suggested the point at which the latter had been struck by the bullet. There was no corresponding breach of surface of the liver, either here or elsewhere. The surface of the organ was, however, stained with blood, and a dark clot was seen extending directly downward in the middle line. This was about the size of the little finger when drawn out, and was supposed to come from the track the ball had made. The incision was therefore prolonged to the umbilicus, and some more and larger clots were found lying underneath the abdominal walls and upon the colon and omentum.

The first point was now to see that the stomach was not injured. The fact that it bulged up into the wound, as well as that it was tense with gas, clearly indicated that it was not perforated. The transverse colon was also found to be intact. On examination of the omentum the bullet was found in its folds and a moment later a small round wad. From the position of the bullet it appeared quite clear that it had struck the liver at the insertion of the falciform ligament, and had glanced off and passed between the abdominal wall and the stomach and transverse colon as nearly as possible in the middle line, to become entangled in the folds of the omentum, some of whose vessels were torn.

It seemed highly improbable, therefore, that any other viscera were injured. Nevertheless, all the coils of small intestine exposed by the incision were carefully examined; then sponges wrung out of sublimate solution were thrust into both flanks and the rectovesical pouch, but came out unstained. The viscera exposed were then thoroughly cleansed by sponging, and were adjusted with the omentum over them, after which the abdominal wound was closed in the usual manner. The bullet track in the abdominal wall was also scoured well, rubbed with iodoform, and a very firm short drainage tube was passed into it as far as the peritoneum but not through the latter. Firm bandaging over a salicylic wool dressing completed the operation. The latter was well borne, and when the anesthetic was recovered from there was no vomit-

ing and only moderate pain, easily relieved by a little morphine. The patient was fed for some days with nutrient suppositories. The temperature rose the same night to 103.6° , the pulse to 100, and the patient became rather restless, but twenty-four hours after operation both were normal, and remained so practically to the end of treatment. The dressings were changed on the fourth, tenth and sixteenth days, union having taken place by first intention, except in the bullet track, which, however, closed rapidly, the patient leaving hospital on the twenty-first day quite well.

In the second case a coil of intestine had been pierced by the bullet, which had entered the abdominal cavity a little below the anterior superior spine of the ilium and internally from it and had passed out behind it, and the bowel had to be resected. The patient died on the sixth day. The post mortem examination revealed a very moderate amount of peritonitis and hypostatic pneumonia.

The author comes to the conclusion after a study of the literature of the subject, that the median incision should be the rule in the vast majority of such wounds of the abdomen, which is, I think, corroborated by almost all well known surgeons, for the reason that thereby a thorough examination of all the organs, as well as thorough cleansing of the abdominal cavity, will be made possible.—*Brit. Med. Jour.* March 17, 1888.

The Treatment of Vesical Calculus.—In a paper on "Litholapaxy vs. Suprapubic Lithotomy in Children," *Brit. Med. Jour.*, Oct. 15, 1887, MR. W. J. WALSHAM compares recently published cases of these two operations with the result, he thinks, of establishing the superiority of the former method in the removal of small and moderate sized stones from male children.

He mentions as the chief points in its favor, 1. The absence of the risks of all cutting operations. 2. The absence of all after-anoyance from escape of urine through the wound. 3. The rapidity of cure. 4. The advantage which both operations possess compared with perineal lithotomy, of leaving the peritoneal organs intact.

The usual objections urged against it are:

1. The undeveloped condition of the urinary organs.
2. The

small size of the bladder. 3. The narrowness and sensitiveness of the urethra.

He thinks these chimerical, and replies:

1. That the non-development of the prostate is favorable. 2. That the expansibility of the bladder of children enables it to hold a quite sufficient quantity of fluid, and to permit the efficient working of a small lithotrite. 3. That after incising the meatus he has never met with any difficulty in children, from three to six years, in passing a No. 6 or 8 English, (13 to 16 French) lithotrite or catheter, and in boys from 8 to 10 years of age, a No. 10 or 11 (18 or 20 French) will readily be admitted.

He gives the following rules as especially applicable to litholapaxy in children: *a.* The lithotrite should be fully fenestrated and the female blade well bevelled. *b.* The evacuating catheter should be furnished with an accurately fitting stylet, in order that any fragment fixed in the eye may be displaced before the catheter is withdrawn. *c.* The meatus should be incised, and no force used. *d.* Crushing should be thorough, evacuation (with a small aspirator) complete, and instruments withdrawn and reinserted as seldom as possible.

Dr. Ward Cousins and Mr. Corley endorsed his views.

Surgeon-Major B. C. Keelan reports (*ibid*) 188 cases of stone operated upon by lateral lithotomy. Among 105, under 25 years of age, there were no deaths. Among the remaining 83 cases, from 26 to 70 years of age, there were eight deaths. Lithotripsy at Hyderabad Medical School is reserved for soft, small stones, and suprapubic lithotomy for stones too large to be removed through the perineum, the author's experience in a few cases not having been favorable, and the operation appearing to him nearly as formidable an undertaking as Cesarean section. In dividing the stones, he recommends that the operator stand on a chair, as the traction cannot be made in the right direction (upward and forward) if he stands in front of the perineum. Resisting bands should be cut, not torn.

In children, under five years of age, it is dangerous and unnecessary to introduce the finger into the bladder. A grooved director may be introduced into the bladder through the perineal wound, and the forceps passed along it. In only four of the 188 cases was there troublesome hemorrhage, and in these it was controlled by a pad of carbolized tow, placed over the lips of the wound, previ-

ously brought together and held there by a strong man. He concludes by asserting the improbability that lithotrity or suprapubic lithotomy will ever supersede the lateral method, and maintains that the asserted dangers are anatomical and theoretical, not surgical, that the transverse perineal, long perineal, and bulbar arteries are insignificant, and that the pubic, the only large artery of the perineum is protected by the tuber ischii.

Dr. Robert Cram reports (*The Lancet*, Dec. 31, 1887,) his first case of suprapubic lithotomy, in which the patient was in the hospital 42 days, his longest period previously, by lateral lithotomy, having been 23 days.

Surgeon-Major P. J. Freyer reports (*Brit. Med. Jour.*, Dec. 24, 1887) 100 cases of operations for stone without death. Of these 16 were litholapaxies in male children. Although he had 165 lithotomies in patients below 16 years without losing a case, he believes litholapaxy a safe and justifiable operation, possessing the great advantage of rapidity of cure and avoidance of cutting. He names the following points as noticeable in regard to the operation on male children:

1. A more variable capacity of the urethra as compared with adults.
2. Greater need for delicacy, and especially for experience in operating.
3. Greater slowness of operation, as the stone must be ground very fine to enable it to pass through the small evacuator.
4. Greater danger of leaving behind fragments, as the stream is small and not forcible.
5. Difficulty in passing instrument, greatest in first two inches of urethra.
6. Difficulty in introduction, owing to rapid congestion of mucous membrane.
7. Almost invariable necessity for splitting meatus.
8. Greater danger of forcible introduction of instrument.

He looks on suprapubic lithotomy as a necessary evil, to be had recourse to only in cases in which neither litholapaxy nor lateral lithotomy can be performed.

Von Dittel (*Wiener Med. Wochenschrift*, No. 42-46, 1887) calls attention to the danger attending dilatation of the bladder with air or fluids as preparatory to suprapubic lithotomy. He made experiments on the dead bodies of 20 persons, varying in age from 2 to 70 years, and came to the following conclusions:

1. Injections of the bladder with air or fluids can produce rupture.
2. Even seven ounces of fluid, or quantities insufficient to raise the bladder above the symphysis, may cause this.
3. Certain

conditions, as cicatrices, diverticuli, ulceration, etc., predispose to this, and such conditions cannot be diagnosed beforehand. The method of raising the bladder above the symphysis, for suprapubic operations by injections, therefore, in some cases causes imminent danger to the life of the patient.—*Lond. Med. Rec.*, November 15, 1887.

Lagenbuch has suggested a suprapubic method of reaching the bladder, which is described in the *Medical and Surgical Reporter*, of Jan. 14, 1888. He has never practised it, and as it involves a possible necessity for chiselling away the lower portion of the pubic bone, and a counter-incision through the perineum for drainage it does not seem to have much to recommend it.

Dr. Edmund Assendelft concludes, in vol. 36 of the *Archiv. f. Klinische Chirurgie* (p. 498), his record of 102 cases of high operation for stone. Two cases died, but one, aged four, from general marasmus, intestinal ulceration, and purulent bronchitis. His mortality, therefore, was about one per cent. The cases are reported with considerable detail.—*Amer. Jour. of Med. Sci.*, April 1888.

The reviewer wishes to add that while he attended Bergmanns' clinic at Berlin, in 1883 and 1885, this eminent teacher, in comparing the results of superpubic and lateral lithotomies in children, used to tell his class that the superpubic operation was preferable, 1. Because strict antisepsis could be carried out to its full extent in the superpubic operation, while in the lateral operation this was impossible. 2. Because there was no hemorrhage to be feared. 3. In children the peritoneum can be easily avoided, because its reflexion is located higher than in adults. For the latter Bergmann prefers the suprapubic operation, when the stone is very large, but takes the precaution to introduce a colpeurynter into the rectum, and to inject the bladder with a weak antiseptic solution, preferably boric or salicylic acids.

The Treatment of Carotid Hemorrhage.—MR. FREDERICK TREVES believing that the ligature of main arteries for the arrest of bleeding in distant parts is often somewhat blindly advised, and thinking that it is not always desirable permanently to occlude a main artery in order to bring about an arrest of circulation in one of its branches, exposed in four cases the common carotid in the usual way, and passed around it a thick piece of soft catgut tied in a loose loop. By pulling upon this loop the circulation through the

vessel could be temporarily arrested. The cases were: Wound of the superior thyroid, of external carotid, of internal carotid, and a case of malignant tumor of the neck, in which tension of the catgut arrested the bleeding during the operation.

He thinks that by this procedure the advantages that attend compression of the artery, or the temporary closure of its lumen in the case of a limb, may be secured for the carotid district. Antiseptic precautions minimize the risks. As to the possibility of damage to the coats of the vessel, or the risks of the temporary occlusion, he thinks time and further experience will have to decide.—*Amer. Jour. of Med. Sci.*, April, 1888.

Tuberculosis of the Mammary Gland.—Tuberculosis of the mamma does not seem to be near as rare a disease as has heretofore been supposed. Only a few years ago pathologists claimed that no tubercles occurred in the mamma, and only a few well authenticated cases have been reported. The latter are mentioned in a treatise lately written by Dr. Ludwig Piskacek of the surgical University-clinic of Vienna. (*Medizinische Jahrbuecher. Heft. 10*, 1886). After enumeration of these few cases so far to be found in the medical literature, Piskacek reports eight cases, which he had an opportunity to observe during the period Oct. 1, 1881 until end of September 1886, at Prof. Albert's clinic, Vienna. Among the latter as well as the former, is not a single case of primary tuberculosis of the mamma. In most of them exists tuberculosis of the lungs. The author divides his cases into those where tubercle virus is carried from some distant tubercular focus by the lymphatics or blood vessels to the mamma, and those where the virus is carried from a neighboring organ or tissue to the mamma from a neighboring suppurating tubercular gland, caries of the sternum and ribs, cold mammary abscess, or even, as is illustrated by one case reported by Heurteloupe, of Paris in 1872, where a subpleural tubercular focus has penetrated an intercostal space towards the mammary gland. (Tuberculosis by perforation).

The differential diagnosis in the beginning of the affection is not easy. In the climacteric period it may be mistaken for carcinoma, and at an earlier age for adenoma. After the tubercular focus begins to soften and break down, it may simulate a cysto-sarcoma, or a milk-cyst. One case of chronic suppurating mastitis is described by the author, which was mistaken for tuberculosis. The breast

was amputated, but no tubercles could be detected. The supposition of tubercular trouble had been supported by the fact that the patient coughed up blood, and had not been pregnant for eleven years.

To differentiate from carcinoma, the absence of hardness of the enlarged glands, and of lancinating pains in the arm and neck is of value. Also the contemporary existence of tubercular foci in other organs, lungs, cervical glands etc. Of great diagnostic importance is the quality of the pus, which is similar to that of tubercular glands.

The treatment consists in extirpation of all diseased tissue, if a number of foci exist, amputation of breast and, as a matter of course, neighborhood enlarged glands, in a similar way as one would operate for malignant tumor.

When there is only one focus, thorough curetting and subsequent application of the thermocautery is the best treatment. Of course, allowance would have to be made the same as in other localized tubercloses, for any coexisting tuberculosis of the lungs, which may become a contraindication to operative surgery.

Of interest are the statistics of the cases treated at Prof. Albert's clinic during the period of Oct. 1, 1881 until the end of Sept. 1886. At the ambulatory clinic (Polyclinic) 24,471 patients presented themselves. Of these 359,352 women and 7 women—had affection of the mamma, of which 2.22 per cent were tubercular.

At the clinical wards of the hospital 5,761 patients—2,215 women and 2,947 men—were treated, most of which had previously presented themselves at the ambulatory clinic. Of these four suffered from tuberculosis of the mamma.

Of all patients 0.07 per cent, of the women treated, 0.18 per cent had mamma tuberculosis.

Of the 2,215 women treated in the hospital, 242 had tumors of the breast, of which 1.65 per cent were due to tuberculosis.

SANITARY ERA.—We should be pleased to know that every one of our readers regularly saw and read this wide awake and energetic presentation of most important sanitary facts and principles. It should be read by physicians and laymen generally. It is published in New York at 710 Broadway semi-monthly at a cost of only one dollar per year.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated meeting March 6, 1888, DR. MULHALL in the chair.

EXCISION OF THE KNEE.

Dr. Steele presented a case of excision of the knee-joint. The patient, a young woman eighteen years of age, nine years ago fell backward from a wagon and injured her left knee. She stated that the knee cap had been broken longitudinally, and examination apparently showed the two separated fragments. However, a serious and protracted arthritis resulted, the leg becoming more and more flexed until it was ankylosed at a right angle, with posterior displacement of the head of the tibia, evidently produced by the action of the hamstring muscles. An attempt was made to straighten the limb by putting on a stirrup and weight. Having tested this a week or two without effect, it became evident that there was only one thing to do, and so she consented to excision of the knee—the removal of the articular surfaces of the femur and tibia, the straightening of the limb, the fastening of the bones together, resulting in a stiff knee, but giving firm support. The case was operated upon about two and a half months ago; the bones seem firmly united, but as a matter of safety she wears a leather splint, made of saddler's skirting, which is not dressed as ordinary leather, and thus keeps its shape well after being moulded. It is not affected by the heat of the body, and being perforated with holes allows the escape of the perspiration. The limb is in a good position. Possibly there is a little bowing outward, and perhaps it is a trifle flexed, but not enough to interfere with the strength of the limb. There is about three inches of shortening which a patten will overcome. She will have a very useful limb in time.

The operation was done at the Post Graduate School, Prof. Tu-

holske and others assisting. Under ether the ordinary incision was made across the front of the joint from one condyle to the other. After dividing the lateral ligaments it was found impossible to enter the joint. The bones were locked. The patella was intact, but was anchylosed to the external condyle of the femur. This explained why during attempts at extension there had been



heard a click. It was when the tibia struck the patella. He then tried with the bone forceps to cut the patella away, but that proving difficult, he finally passed a retractor under the lower end of the femur, between it and the popliteal vessels, and with an ordinary flat saw cut from above downward, sawing off the articular end of the femur with the patella, and then passed a blade of a

Butcher's saw behind the tibia, and sawed a slice from its upper articular surface from behind forward. The vessels were seized with the hemostatic forceps as they sprung. The limb was straightened and found to be in pretty good line. Two bone crochet or knitting needles were used to draw the bones together. With an ordinary carpenter's bit a hole was made through the upper end of the tibia, one on either side, and the pin driven in from below upward through the cancellated portion of the femur and into the laminated part for perhaps the space of four or five inches, about an inch being left projecting. Iodoform was dusted in the wound, two drainage tubes introduced, the edges drawn together with carbolized silk, and the parts placed in a well padded bracketed wire splint. The splint was applied with the patient lying on her back, the limb being held in a vertical position, as in that way one bone supported the other, and they were more steady, and there was less danger of the upper bone becoming displaced. The limb was fastened to the splint with adhesive strips, the wound well covered with gauze and cotton and oil silk, the patient put to bed, and the splint suspended from the ceiling. There was no special reaction, but for ten days the temperature ranged from 101° to 102° , and the pulse was 20 or 25 beats more frequent than normal; otherwise there was no complication of any kind except an occasional jerking of the limb which ordinary pills of opium controlled. The external wound united readily. As regards the dressing, iodoform was used with the ordinary antiseptic gauze next to the wound, absorbent cotton outside of that and oiled silk outside of that. At the time of the operation no special antiseptic precautions were used except that the limb was washed with carbolic acid water, the instruments were dipped in the same before being used, and the operator's hands well washed. No douche or irrigator was used during the operation, nor at any subsequent time. Drainage tubes were introduced and brought out at the lower end of the wound on either side. Dr. Steele thinks it well to carry the arms of the wound as far back as possible in order to allow the drainage tubes to come out well down. Little or no pus at any time formed, not enough to soil the dressing. A little absorbent cotton put on a holder and passed into the tube would bring up a little moisture. He believes the tube itself caused irritation and that to it was due the pus that had formed. The parts were kept perfectly quiet in this splint for six weeks, then removed and a plaster of Paris ban-

dage applied. Two or three weeks later this leather splint was made, and which she is now wearing. She is getting on remarkably well.

As regards the question could any other means have been resorted to for straightening this limb, Dr. Steele said: "The patella was ankylosed to the femur. Could we have gone in subcutaneously and separated it, divided the hamstring tendons and tied the limb down? I believe not. The limb had been in this deformed position so long—nine years—that the soft parts, the ligaments, especially the posterior ligament of the knee joint and the crucial ligaments, have adapted themselves to the new position, and it would have been impossible to straighten the limb except by tearing these ligament. Then, again, the condyles of the femur being unopposed by the tibia for so many years had grown downward, become elongated, all this with the posterior or upward displacement of the tibia already referred to made it impossible to have brought the joint surfaces together. I do not know of any means that could have been resorted to to straighten the limb except the operation which was performed."

Among the peculiarities in the operation was the dispensing with the Esmarch bandage. Dr. Steele had seen cases where that bandage had been used, and when it was removed serious hemorrhage occurred. Death has sometimes occurred from secondary hemorrhage following its use. In this operation no large vessels are tied. Carbolyzed ligatures may be used, or the hemostatic forceps, as was successfully done, and no secondary hemorrhage. Of course the patient will lose a little more blood at the time of the operation, but with a patient such as this one here that is of little consequence.

Another point was the apparent disregard of antiseptic precautions. Dr. Steele said he was in favor of all antiseptic procedures, of the present rational method of treating wounds—the method which science during the last ten or fifteen years has given to us; but it had not been convenient to carry out all the details of the antiseptic precautions, though had he deemed it absolutely necessary, he would have done so; but he did not believe it necessary, and the result fully sustained his conclusions.

Then as regards the pinning of the bones together. There is a tendency in these cases for the tibia to be displaced backward, for the hamstring muscles still acting, and being unopposed by the

quadriceps muscle which has been divided, draw the bone backward, and in many cases the tibia has been found ultimately displaced; and it has, therefore been proposed to saw both bones on a line from before backwards and downwards, thus the tibia abutting against the femur, it cannot be displaced backwards. As an additional precaution the pins were used to fasten the bones together. In some cases iron nails and sharp steel points have been driven into the bone. Of course these would have to be removed in a week or two. In this case he concluded to use bone knitting needles, adopting the suggestion of Mr. Marsh, of London, who, he believed, first suggested them. They were driven into the bones and left there. At about the end of the third week he found that the end of one of the needles which projected was loose, and he drew on it and an inch and a half of it came away, leaving the other portion of the needle in the part. A few days later the other pin being loose he removed it entire, and it showed that the process of absorption had been going on. These bone pins give rise to no trouble whatever, and there seems to be no objection to their use. It had been said (he thought it was Brainerd, of Chicago, who first suggested it many years ago) that if ivory pegs were used in fastening fractured bones they would excite irritation and cause a great deal of provisional callus to be thrown out, which would assist in uniting the bones.

There was no trouble whatever from the use of the ether, attributable to the fact that the patient had omitted two meals previous to the operation.

As to the question whether amputation is preferable to excision, of course a natural limb, even though it be stiff, is better than an artificial substitute. This operation is generally performed for incurable disease of the knee joint. Statistics show that it is not safe in young children; nor in old persons. However, if an adult person came in as good condition as this girl was in, he would not hesitate to perform the operation, even though the patient was 40 or 45 years of age. But he would be governed in the matter by the condition of the patient.

Lastly as to the shortening now present. This is not all due to the amount of bone removed. Previous to the operation the limb was atrophied from non-use, there being one and one-half inch difference in length.

ANTISEPTIC SURGERY.

Dr. Grindon asked whether the bone knitting needles used were aseptic?

Dr. Steele answered that they were allowed to lie in the carbolized water a short time previous to the operation. Perhaps they should have soaked in it for three or four days.

Dr. Frank Glasgow said it seemed to him due to the society that some one should enter a protest against the neglect to adopt strict antisepsis in cases of this kind. If strict antiseptic precautions are not available such cases ought not to be operated upon. Because *Dr. Steele* has had the good fortune to have a good result in this case does not justify us in neglecting antiseptic precautions. The good result in this case was doubtless due simply to the union by first intention, and the very accurate coaptation of the parts which saved him from disastrous results. He had seen one of the pegs, and, although it was eroded somewhat, it looked as if some purulent process had been going on around it which caused it to become roughened. The corroded condition was in his opinion due to this rather than to any absorption which took place. He asked the doctor whether he dressed the part frequently.

Dr. Steele replied that he did. Perhaps it was not necessary, but his anxiety about the case prompted him to do so.

Dr. Frank Glasgow said that is also contrary to our present surgical teaching. The wound should have been put up and kept quiet without disturbing it. He thought the society should enter its protest against this method of procedure.

Dr. Grindon asked whether *Dr. Steele* supposed that in walking the patient will bring the heel down to the ground, or walk with the foot in an equinus position.

Dr. Steele said that a patten was being made with which she would walk with the foot in a natural position or flat. No doubt the younger men of the profession have more of the antiseptic fever than the older members and use greater precautions. His preceptor had been one of the most distinguished surgeons in this country, and he had excellent results, although antisepsis was unknown in his days. The pendulum might swing too far. We cannot take too great precaution in order to prevent human suffering and death. We should adopt every means which the wisdom of the present day indicates is necessary, but possibly there are details of antiseptic methods which are unnecessary. He became satisfied while

abroad, sitting under Lister for some months, that antisepticism means largely surgical cleanliness, and Lister has himself abandoned the spray. Dr. Steele used antiseptic local dressing, *i. e.*, carbolized oil, and no doubt it had its effects. By no means would he decry antiseptis. It has wrought wonderful effects in the hospitals of Europe within the last few years. In Russia the mortality has decreased 30 or 40 per cent, and the results of operations are much more favorable than formerly. And the Germans, slow to adopt the foreign idea, slow to put away preconceived notions, took up this matter and adopted Lister's teachings until at present they outlist Lister; and to-day pyemia and erysipelas are almost unheard of in their wards. In the early days they had epidemics of these troubles, and wards were wont to be closed, the walls and ceilings scraped and white-washed, floors planed and kept the rooms closed for months before patients were again put in them. Now nothing of that kind is known, and this improvement is all due to fighting germs. We are on the right track, but may somewhat modify some of the extreme minutiae of to-day. It is well known that Mr. Tait operates aseptically but not antiseptically, and none have better results. Dr. Steele said no doubt there were enough germs in the hospital to have poisoned his patient; no doubt there were enough germs on the rusty carpenter's bit used to bore holes into the bone to infect her; still she escaped, and no difficulty was experienced. The pin when it came out was softened, indicating that absorption had been going on. At present the pin is brittle, and pieces are falling off, so that it is difficult to realize what its condition was when it was removed, still he did not believe that it caused any irritation and suppuration.

Dr. Mulhall remarked that some individuals are germ proof.

Dr. Steele said there might be something in that. If this patient had been suffering from chronic suppurating disease which had existed for years, there might have been a physical condition which would have favored sepsis, and germs might have found a good soil upon which to multiply.

As he had stated, the condyles of the femur being unopposed by the tibia had grown downwards. He had seen the same thing in knock-knee where the inner condyle grows downwards from the tibial pressure being thrown upon the outer condyle altering the shape of the joint.

KNOCK-KNEES AND BOW-LEGS.

Dr. Nelson said that *Dr. Steele's* remark with regard to anatomical changes in the form of the joint called to mind a case seen a few days ago of a little child about four years old, who seemed to be somewhat inclined to the development of knock-knee. There was no distinct bending of the knees now, but she is a very fat, plump child, and as she walks, her father states that the thighs strike from the knees up. In a case of that kind would *Dr. Steele* advise the parents to have surgical interference at present, or to wait and see whether the deformity increases to such an extent as to make it inconvenient for the child to walk as she grows older? Is the deformity likely to increase to such an extent as to make it necessary to adopt surgical measures?

Dr. Steele said "an ounce of prevention is worth a pound of cure." If the child were not so fat, the thighs would probably not touch, but would come together at the knees. Because the child is fat is, perhaps, the reason why the knees knock, and the result is that there is a bowing angle of the legs, and the weight of the body is thrown on the outer condyles of the femurs, and the inner condyles being opposed lengthen, and the result is a permanent deformity.

As regards the treatment of a case like this, he would keep the child on its feet as little as possible. He would not encumber it in the day time with any apparatus, but would use an apparatus at night to correct the deformity extending from the thigh down to the feet without a knee-joint. He thinks it a mistake to undertake to use an appliance for knock-knee with a joint at the knee.

Dr. Grindon said that he had seen several cases in which there was a very extreme degree of bowing of the legs in young children, quite a number of cases in colored children, and some in white, where the bowing was so great as to constitute a very ugly deformity. In several of these cases which were under observation from time to time, as the children grew older the limbs straightened out. In the case of two white children particularly, two little girls, twins, now perhaps eleven years old, the legs are now quite straight, although nothing was done in the way of treatment. He believed that sort of result to be not infrequent.

Dr. Steele said he had observed the same thing, in fact, quite frequently in colored children. He believes, however, that in colored

children we are more apt to have a straightening of the limbs than in white ones; the nutrition improves as they get older. All the rules of natural philosophy with which we are familiar go to show that when a column is once out of line it will continue to become more and more so. No doubt these children have poor food, bad air, and want of cleanliness, and it may be that better surroundings cause an improvement. We know that rachitis is quite common among colored children. Another point is that given a departure from a straight line in a young child, its legs being very short, the same departure in the adult would not be so perceptible. As the legs grow, the bowing does not increase, so that the amount of deformity seems less, and is relatively less. Then, too, in later years the clothing renders the deformity less perceptible.

Dr. Glasgow asked what is supposed to be the cause of bow-legs?

Dr. Steele said it is generally due to the softening of the bone, due to an improper proportion between the organic and mineral, or earthy matter of the bone, and the child walking causes it to become bowed.

We do not always find in these cases evidence of rachitis in enlarged wrists or beaded ribs. But there is no doubt a tendency to a rachitic condition.

Dr. Fry said that one causative factor of bow-legs was rather forcibly called to his mind rather early in his professional career. A child whom he was treating for other troubles was bow-legged, but the family felt pretty certain that its legs would be straightened, because a brother, then some seven or eight years old, had been pretty nearly as bow-legged as this younger one, and the legs had got perfectly straight. Still, at his suggestion they went to a dealer in orthopedic apparatus, and he said he didn't believe there would be any necessity for an apparatus for the child, that its legs would be straightened out.

Of course, it was to his advantage to have put an apparatus on, but he made the remark at the time that the little fellow's body was very disproportionately heavy for his limbs, and in noticing cases afterwards, he himself had remarked that in the majority of instances children with bow-legs have large, heavy bodies. Now the boy is a very well proportioned child, some thirteen or fourteen years of age, and his legs are as straight as they can be. There is not the least evidence of bow-leggedness, and this disproportion

between his legs and body has disappeared. He thinks that this disproportion is a factor in the production and continuance of bow-leggedness.

Dr. Grindon said he did not understand *Dr. Steele's* remark about the bowing of the knee in the adult being less than in the child because of the greater length of the limbs.

It seemed to him that if the trouble was in the tibia, if the head of the tibia determined the angle at which that bowing shall take place, the departure would be greater as the limb becomes longer.

Dr. Steele asked how *Dr. Fry* accounts for the straightening of this child's limb.

Dr. Fry said he didn't know how to account for it. Probably the fact that the boy's limb grew at a greater rate than the body, and the two became better proportioned probably had something to do with it.

Dr. Steele said the problem is yet unsolved. A column once out of line would get worse and worse, whereas we do see cases in which the line becomes better.

Now in regard to what *Dr. Grindon* had said, the trouble is not at the joint, it is in the tibia. The tibia does not bow any more after it is grown than it did before, consequently the longer the bones become the less relatively will be the deformity, and of course, less perceptible. Of course, if the deformity was in the joint as the limb became longer this would be increased, but that usually is not the case in bow-legs.

Dr. Grindon asked if the deformity is altogether in the shaft why it is that the knees are so widely separated in these cases.

Dr. Steele said if there is a bowing out of the femur or tibia it will throw the knee out. Usually the deformity is mostly in the tibia, but there may be also some deformity in the femur.

FACIAL PARALYSIS FROM PRESSURE OF FORCEPS.

Dr. Fry reported a case in which he removed a child with the forceps the week preceding and now the child's face is paralyzed, the paralysis being due to the manner in which the forceps impinged directly in front of the ear. He had not had time to look up the textbooks to see how frequently an accident of the kind may or does happen. He had no trouble in applying and locking the forceps. When they were locked they were in the median line and he made steady traction, without any sawing motion at all.

One of the blades of the forceps cut the scalp in the right frontal region; the anterior portion of the blade of the other came forcibly in front of the left ear. There is no wound at all, nothing but an ecchymosis that includes the ear, but there is a very decided paralysis on that side of the face of the child. He would like to ask Dr. Nelson, Dr. Glasgow and Dr. Grindon, who have considerable obstetric practice if they have ever met with such a case. He used a Hodge's forceps, and one gentleman told him that the trouble was due to the forceps; that Schenck's modification of that forceps would never have caused the trouble; that the trouble was due to the manner in which the anterior extremity of the blade is shaped.

Dr. Grindon stated that among the deliveries—between 175 and 200—which he saw at the female hospital he saw no case of this kind, although the textbooks state that it does occur sometimes in instrumental deliveries. These cases generally recover in a short time without any treatment. In regard to the peculiar kind of forceps of which the doctor spoke, he did not see how it would prevent such an accident. It has well marked pelvic and cephalic curves, and he should judge that the pelvic curve being so strong, it would be, if anything, more apt to press strongly over whatever point it impinged against.

Dr. Nelson asked Dr. Fry at what point the head was when the forceps were applied?

Dr. Fry said the head had engaged in the superior strait but had not entered to any great extent into the cavity of the pelvis.

THE A. M. A. AT CINCINNATI.

The recent meeting of the American Medical Association at Cincinnati may fairly be said to have been a genuine success.

The attendance was large, the addresses were able and dignified, the work in the several sections was creditable, the social features of the occasion were delightful, the exhibits were tasteful and well arranged; and, most important of all, there was a spirit of harmony and courtesy which made the occasion pleasant to all.

No question of ethics was brought up for discussion, and the time of the members was devoted to the reading and discussion of papers, and listening to the well prepared addresses and reports which were presented for their consideration.

The president's address forcibly presented the defects of the present method of medical education, and the necessity for elevating the standard and diminishing the number of medical schools. It is inevitable that sooner or later the licensing and teaching shall be separated. The suggestions to this end and for requiring longer terms of study and higher preliminary requirements which were made in this address, all point in the right direction.

The officers elected for the coming year are as follows: *President*, W. W. Dawson, Cincinnati, O.; *Vice-Presidents*, W. L. Schenk, Kansas; Frank Woodbury, Pa.; H. O. Walker, Mich.; J. W. Bailey, Ga.; *Treasurer*, R. J. Dunglison, Pa.; *Secretary*, W. B. Atkinson, Pa.; *Librarian*, C. H. A. Kleinschmidt, D. C.; *Trustees*, E. M. Moore, N. Y.; J. H. Hollister, Ill.; J. M. Jones, D. C.; *Members of Judicial Council*, W. A. Phillips, Kas.; A. M. Pollak, Pa.; W. C. Vanbibber, Ind.; J. F. Hibbard, Ind.; C. S. Wood, N. Y.; S. M. F. Gaston, Ga.; W. H. O. Taylor, N. Y.; G. L. Porter, Conn. Dr. Wm. Pepper, of Philadelphia, is to deliver the address on General Medicine at the next meeting, Dr. P. S. Connor, of Cincinnati, that on Surgery, Dr. W. H. Welch, of Maryland, that on State Medicine.

The next meeting is to be held at Newport, R. I., on the second Tuesday in June, 1889, Dr. R. H. Storer, of that city, being designated as chairman of the committee of arrangements.

The report of the Trustees of "The Journal" showed that the circulation to subscribers is now 4572, with 425 copies distributed to exchanges. The *Journal* is now a source of revenue, not of expense to the Association. The trustees recommend using the increased receipts for the improvement of the *Journal*, an enlargement of the editorial corps, etc.

SCOTCH OATS ESSENCE.—Dr. R. G. Eccles has shown in the April issue of the *Druggists' Circular* that the article which has been widely advertised as a nerve tonic and invigorator contains one-third to one-half grain of morphine in each fluid ounce. Just the persons who are predisposed to morphinomania are those who would be most likely to be attracted by an article claiming what was claimed for this, and, without knowing it, would be likely to acquire that terrible appetite which, for persons of that temperament, is generally utterly irresistible. Stringent legislation should be enacted to prevent such diabolical fraud.

NOTES AND ITEMS.

THE LONDON LANCET.—The owners of this journal have been offered and have refused \$400,000 for it..

THE GROSS MEDICAL COLLEGE, of Denver, Col., held its commencement exercise Tuesday evening April 10, 1888.

POISON IVY.—DUFFIELD states that wood ashes applied dry, or lye made from them will afford speedy relief in cases of ivy poisoning.—*Med. News*, April 7, 1888.

M. ZENTMAYER the well known manufacturer of microscopes and lenses, whose work has done so much for medical science, died early in April in Philadelphia.

C. S. MUSCROFT, M. D., a prominent surgeon of Cincinnati, died May 5, 1888, just on the eve of the A. M. A. meeting. His death was due to disease of the heart, from which his father also died.

NATIONAL ASSOCIATION OF RAILWAY SURGEONS.—A meeting for organization is called for June 28. This association will be one of great interest to the large number of surgeons who are connected with the various R. R. systems of the country.

THE TEXAS HEALTH JOURNAL promises to make monthly visits to its subscribers and exchanges after July next. It is intended to make it the medium of presenting public health topics to the attention of intelligent laymen, as well as physicians. It is to be published at Dallas, Texas, under the editorship of Dr. J. R. Briggs.

THE NEW YORK ACADEMY OF MEDICINE is forty years old, and has near five hundred members. It has a library of 37,000 volumes and 20,000 pamphlets, and a free reading room with nearly all the medical journals of the world. It owns its present building and some \$100,000 besides. A new fire proof building is greatly needed and an appeal is made to the public for the means erect one at a cost of \$250,000

AN AGRICULTURAL EXPERIMENT STATION has been established in connection with the State University at Columbia, Mo. It is proposed during the present season to make "A Study of the Life History of the Corn Plant and of the Physical and Chemical Conditions of Climate, Soil and Atmosphere, that determine its Profitable Growth."

OINTMENT FOR SMALLPOX.—The following ointment is said to act as an anesthetic and antiseptic, and to prevent pitting:

R _x	Pulv. iodoform,	-	-	-	3ss.
	Pulv. camphoræ,	-	-	-	3i
	Vasellini,	-	-	-	3i

M. Ft. unguent. Sig. Apply by gentle inunction.—*Gail-
lard's Med. Jour.* April, 1888.

POTABLE WATER.—The King of the Belgians has offered a prize of 25,000 francs (about \$5,000) for the best work in manuscript or print, on the means of procuring in abundance and at small cost the best quality of potable water for large cities, especially for Brussels and its suburbs, regard being had to the future increase of population. French, English, Flemish, Italian, German or Spanish may be used, but foreign competitors must have their work in by Jan. 1, 1893.—*Sanitary News*, March 24.

FOR TOOTHACHE.—A pledget of cotton dipped in the following preparation and placed in the cavity of a carious tooth will generally relieve the pain:

R _x	Menthol,	
	Acid phenic.,	
	Alcohol,	aa m _{xx} .

After introducing this it should be covered with another bit of cotton dipped in collodion.—*Nouveaux Remèdes*, Apr. 24.

PROF. UNNA is giving a half yearly course of instruction in histology, bacteriology, diagnosis and therapy of skin diseases commencing during April. He especially calls attention to the fact that this is not one of the usual four to six weeks vacation courses of lectures, but a regular semester in which thorough instruction is given and practical work done in the clinics where he has unlimited material. This course will furnish admirable facilities for any who desire to gain through teaching in dermatology.

REVOLT OF VENEREAL PATIENTS IN AN ITALIAN HOSPITAL.—

The authorities at the hospital of Santa Maria, Naples, forbade the female patients in the venereal wards to receive visits from their friends and paramours. An open revolt ensued, during which much of the furniture of the hospital was broken, windows and doors were smashed, and more than a score of the Sisters of Charity in attendance were injured more or less severely. The police who attempted to quell the riot were attacked, and several of them were wounded. After about eight hours the police succeeded in restoring order, and twenty-eight arrests were made.

UNOFFICIAL PREPARATIONS.—The St. Louis Drug Clerk's Association have undertaken the analysis of prescriptions in the various drug stores of the city for the purpose of ascertaining the frequency with which various unofficial preparations and drugs are ordered in this city. It is the intention thus to ascertain what now unofficial substances are of importance to the druggists and physicians of St. Louis and vicinity. The data so gathered and compared with similar data from others places will be a valuable aid to the Revision Committee of the U. S. Pharmacopeia for 1890.

THE UNIVERSITY MEDICAL MAGAZINE is the name of a new monthly medical journal to be published under the auspices of the Alumni and Faculty of Medicine of the University of Pennsylvania. It will be under the editorial management of Drs. G. E. de Schweinitz and Hobart A. Hare, with an advisory committee of members of the faculty. It will be conducted in the interests of the institution, containing clinical lectures and articles from professors, demonstrators and others, and reports of practical work done in the various departments. Each number will contain sixty-four pages, and the subscription price will be two dollars per annum. The first number is promised Oct. 1, 1888.

CHEMICAL INCOMPATIBILITY OF ANTISEPTIC AGENTS.—R. Boxall has studied (*Brit. Med. Jour.*, April 28,) the chemical relations of a number of the most common antiseptic agents, and finds several of them incompatible with oils and soap, as well as with one another. For example, corrosive sublimate forms an insoluble soap when a neutral soap solution is used. Hence a small admixture of soap will precipitate all the mercuric chloride in a solution. Therefore after washing the hands they should be thoroughly rinsed with fresh water before immersing them in a bichloride of mercury solution.

DR. FRANK WOODBURY has laid down the editorial pen and withdrawn from all responsible connection with the *Phila. Med. Times*, of which Dr. W. F. Waugh has assumed the entire ownership and conduct.

We regret that the pressure of other duties has necessitated Dr. Woodbury's withdrawal from editorial work; and congratulate him if the work which will engross his time shall be as pleasant and profitable to himself as has been his editorial work to others.

Dr. Waugh has our best wishes in the increased responsibilities which by Dr. Woodbury's withdrawal now fall upon his shoulders.

GARBAGE CREMATION.—Chicago has completed arrangements for the cremation of her garbage. The cost of the furnace was \$10,000. It is situated on Grant St., in the western part of the city, in a stone quarry so that the top is just on a level with the street. The garbage wagons drive on top of it, and the loads are dumped into chutes which convey the garbage down to floors from which it is shoveled upon a grating over which the flames pass. There are two furnaces, one at the north end and another at the south end of the building; and the chimney is in the middle. There are four ovens in which the garbage is received and consumed, and the capacity is ample for the cremation of all such material for some time to come. So far the results have been found to be very satisfactory. Montreal has had this system in operation for several years. This is a much more rational and better mode of disposing of such refuse than that of dumping it into the river, as is the practice in our own city.

CRIMINAL MARRIAGES.—In commenting on the marriage of Miss Fellows to the Sioux Indian, Chaska, the *Med. Reg.*, (April 14) says: "We have long been of the opinion that the generations to come should be protected from physical blight by legal interference. Persons suffering from a possibly hereditary disease have no moral right to bring children into the world and curse them with physical weakness that renders their lives one long misery. Nor have any two human beings a right to contract a marriage which will give their offspring a weaker moral or physical hold on the blessings of life than they themselves enjoy. A woman has no right to marry a drunkard or rake any more than she has a right to marry a consumptive, or a man afflicted with hereditary insanity.

It is not merely racial prejudice that opposes the marriages of the negro and the white man. Entirely apart from the almost certain mental degeneracy of the progeny of such parents, stands the fact that the children of such marriages are notoriously of weak and often imperfect physical development.

INSECT STINGS.—DR. BERNBECK, in the *Vereinblatt der Pfulzer Aerzte*, No. 6 advises the following application for insect stings or bites:

- | | | | | | | |
|----|---|------------------|---|---|----|-----------|
| 1. | R | Collod. elastic. | - | - | 19 | (3v). |
| | | Acid. salicyl. | - | - | 1 | (gr. xv). |

M. Sig. To be applied to the sting.

- | | | | | | | |
|----|---|--------------------------|---|---|-----|------------|
| 2. | R | Collod. elastic. | - | - | 10 | (3iiiss). |
| | | Hydrarg. bichlorid. cor. | - | - | .01 | (gr. 1/6). |

M. Sig. To be applied to the sting.

The above lotions are equally good, so that ammonia need no longer be used in such cases. As soon as the lotion is applied the pain ceases, and only rarely did the surrounding skin become swollen in consequence of the sting,—that is when the remedy was immediately applied.—*Therapeutic Gazette*, March 1881.

THE AMERICAN PUBLIC HEALTH ASSOCIATION will hold its sixteenth annual meeting at Milwaukee, Wis., November 20-23, 1888.

The executive committee have selected the following topics for consideration at said meeting:

1. The Pollution of Water-Supplies.
2. The Disposal of Refuse Matter of Cities.
3. Animal Diseases Dangerous to Man.
4. Maritime Quarantine, and Regulations for the Control of Contagious and Infectious Diseases, and their Mutual Relations.

Mr. Henry Lomb, of Rochester, N. Y., now well known to the American public as the originator of the "Lomb Prize Essays," offers, through the American Public Health Association, two prizes for the current year, on the following subject:

"Practical Sanitary and Economic Cooking Adapted to Persons of Moderate and Small Means."

First prize, \$500.

Second prize, \$200.

The conditions prescribed are similar to those usual in such contests, and may be learned in detail by any one interested by addressing the secretary Dr. Irving A. Watson, Concord, N. H.

CORNELIUS REA AGNEW died Wednesday, April 18, 1888, of perityphlitis, his illness having continued scarcely a week. The character of his disease was at once recognized, and Dr. Sands operated, evacuating some pus. Hopes were entertained of his recovery after this, but symptoms of general peritonitis set in with fatal results at the date mentioned.

Dr. Agnew was born in 1830, and was in his fifty-eighth year when he died. He was a prominent figure in professional and social circles, and exerted a wide potent influence in public affairs in New York. He was one of the organizers and most efficient workers in the U. S. Sanitary Commission.

In 1866 he established an ophthalmic clinic at the College of Physicians and Surgeons, and three years later was elected Clinical Professor of Diseases of the Eye and Ear in that institute. He also organized the Brooklyn Eye and Ear Hospital, and the Manhattan Eye and Ear Hospital. He held various important offices of trust in connection with different institutions public and private, as the New York State Hospital for the Insane, Columbia College, Sanitary Reform Association, etc. He was a fluent speaker and an active member in numerous medical and scientific societies. He had many strongly attached friends, and is mourned by many who knew and loved him in life.

EDWARD G. LORING.—Suddenly, only five days after the death of Dr. Agnew just recorded, died another eminent ophthalmologist of New York City, for several years associated in the practice of their speciality with Dr. Agnew, and intimately associated with him in founding the Manhattan Eye and Ear Hospital. He was for many years ophthalmic surgeon to the New York Eye and Ear Infirmary.

He had no professorship, but his name had been spoken of as a fit successor to Dr. Agnew in the faculty of the College of Physicians and Surgeons.

Dr. Loring was an untiring student, a recognized authority concerning the more abstruse problems in optics. He was a successful practitioner and had a large and lucrative practice. He was an able writer, and it is a subject of special regret that by this sudden death is prevented the carrying out of his intention to record in book form the results of his studies and observations.

Dr. Loring was 51 years of age when he died.

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